IONICS INC Form 424B3 February 17, 2004

PROSPECTUS

IONICS, INCORPORATED

4,915,660 Shares

Common Stock

This prospectus relates to 4,915,660 shares of our common stock held by the selling stockholders. We will not receive any proceeds from the sale of these shares by the selling stockholders. We have agreed to bear substantially all of the expenses in connection with the registration and resale of the shares (other than selling commissions and fees).

The Ecolochem Selling Stockholders include Lyman B. Dickerson; Douglas G. Dickerson; The Estate of Richard C. Dickerson; The Lyman B. Dickerson Revocable Trust Dated September 9, 1996 or any Successor Trustee, as amended; The Richard Dickerson Revocable Trust Dated March 5, 1993, or any Successor Trustee, as amended; The Douglas G. Dickerson Revocable Trust Dated June 22, 1988, or any Successor Trustee, as amended; The Lyman Dickerson Irrevocable Trust, dated July 1, 2001; The Richard Dickerson Irrevocable Trust No. 3, dated July 1, 1991; and The Douglas Dickerson Irrevocable Trust No. 3, dated July 1, 1991 and certain of their permitted transferees. The Ecolochem Selling Stockholders acquired the offered shares directly from Ionics upon the consummation of Ionics' acquisition of Ecolochem, Inc. and its affiliated companies.

Ruthal Limited is also included as a selling stockholder hereunder. Ruthal Limited has the right to acquire the shares of our common stock to be offered hereunder upon the exercise of outstanding options to purchase an aggregate of 10,000 shares of our common stock. We have agreed to include the shares of our common stock to be offered hereunder by Ruthal Limited pursuant to certain contractual registration rights we previously granted to Ruthal Limited.

As used herein, the term "selling stockholders" includes the Ecolochem Selling Stockholders, Ruthal Limited and the permitted transferees or other successors—in—interest of the Ecolochem Selling Stockholders and Ruthal Limited. The selling stockholders may offer the shares from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our common stock is traded on the New York Stock Exchange under the symbol "ION." On February 6, 2004, the closing sale price of our common stock on the New York Stock Exchange was \$28.40 per share.

Investing in our common stock involves risk.
 See "Risk Factors" beginning on page 1.

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

 $\hbox{Prospective investors should rely only on the information contained in this prospectus or information specifically incorporated by reference in this } \\$

prospectus. We have not authorized anyone to provide prospective investors with information that is different.

Neither the delivery of this prospectus, nor any sale of the shares, shall create any implication that the information in this prospectus is correct after the date hereof.

The date of this prospectus is February 17, 2004.

TABLE OF CONTENTS

	Page
Ionics, Incorporated	. 1
Risk Factors	. 1
Special Note Regarding Forward-Looking Information	. 9
Use of Proceeds	.10
Selling Stockholders	.10
Plan of Distribution	.12
Legal Matters	
Experts	.15
Where You Can Find More Information	.15
Incorporation of Certain Documents by Reference	.15

IONICS, INCORPORATED

We are a leading water purification company engaged worldwide in the supply of water and related activities and the supply of water treatment equipment through the use of proprietary separations technologies and systems. Our products and services are used by us or our customers to desalt brackish water and seawater, recycle and reclaim process water and wastewater, treat water in the home, manufacture and supply water treatment chemicals and ultrapure water, process food products and recycle and measure levels of waterborne contaminants and pollutants. Our customers include industrial companies, consumers, municipalities and other governmental entities, and utilities.

Ionics was incorporated in Massachusetts in 1948. Our principal executive offices are located at 65 Grove Street, Watertown, Massachusetts 02472 and our telephone number is (617) 926-2500.

RISK FACTORS

You should carefully consider the risks described below before you decide to buy our common stock. The risks and uncertainties described below are not the only ones facing our company. Additional risks and uncertainties may also impair our business operations. In evaluating our business and before you decide to buy our common stock, you should consider carefully the following risks, in addition to the other information contained in this prospectus and the other documents incorporated by reference into this prospectus. If any of the following risks actually occur, our business, financial condition or results of operations would

likely suffer. In such case, the trading price of our common stock could decline, and you may lose all or part of the money you paid to buy our common stock.

Our results of operations may fluctuate significantly on a quarterly basis.

Our quarterly operating results may vary significantly from quarter to quarter, depending on a number of factors including:

- o the introduction and market acceptance of new products and new variations of existing products;
- o the activities of competitors;
- o our ability to control expenses;
- variations in the timing of orders and subsequent shipments;
- o length of approval processes or market tests;
- o changes in our mix of products;
- o disruption in our sources of supply;
- o personnel changes;
- o changes in our capital spending;
- o unforeseeable or unavoidable delays in large-scale customer projects;
- o higher interest rates; and
- o general economic conditions.

The anticipated benefits of acquiring Ecolochem, Inc. and its affiliated companies (the "Ecolochem Group") may not be realized.

We acquired the Ecolochem Group with the expectation that the acquisition would result in various benefits including, among other things, enhanced revenue, profits, market presence, cost savings and operating efficiencies. We expect that the acquisition will enhance our position in the water treatment services market through the combination of our technologies, products, services and customer contacts with those of the Ecolochem Group, and will enable us to broaden our customer base in the electric power and

petrochemical industries. If our business or the Ecolochem Group's business fails to meet the demands of the marketplace, customer acceptance of our products and services could decline, which would have an adverse effect on our results of operations and financial condition. We may not realize any of these benefits and the acquisition may result in the deterioration or loss of significant business. Costs incurred and potential liabilities assumed in connection with the acquisition, including pending and threatened disputes, litigation and environmental liabilities, could have a material adverse effect on our business, financial condition and operating results.

In addition, we may not achieve the anticipated benefits as rapidly as, or to the extent, anticipated by certain financial or industry analysts, or other analysts may not perceive the same benefits to the acquisition as we do. If these risks materialize, our stock price could be adversely affected.

Our restructuring program may not result in the intended financial performance improvements. $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right)$

On September 3, 2003, we announced a restructuring program intended to improve our financial performance through a realignment of our management structure, a reduction in personnel, and the consolidation of certain operations. The program when fully carried out would result in the elimination of approximately 200 positions, or approximately 10% of our workforce, and is anticipated to result in annual personnel savings of approximately \$14 million and annual facilities savings of approximately \$1.4 million. In connection with the restructuring program, we anticipate incurring charges for severance costs,

facilities shutdown and relocation costs, and reporting process improvement costs totaling approximately \$11 million, as well as goodwill impairment and other long-lived asset impairment charges.

A number of the planned restructuring actions have been taken, and others have yet to be implemented. We may not be able to complete the implementation of the restructuring program to the extent and according to the timetable presently expected. The cost savings we realize from the restructuring may be less than anticipated, and the overall restructuring costs we incur may be greater than anticipated. Consequently, the overall impact of the restructuring on our profitability may differ from our original estimate.

We may have difficulty and incur substantial costs integrating the Ecolochem Group.

Integrating the Ecolochem Group will be a complex, time-consuming and expensive process. Before the acquisition of Ecolochem Group, Ionics and the Ecolochem Group operated independently, each with its own business, products, customers, employees, culture and systems, including data management and financial systems. Additionally, we are currently in the process of restructuring our business and operations. We may face substantial difficulties, costs and delays in integrating the Ecolochem Group, which may include:

- o perceived adverse changes in product or service offerings or customer service standards, whether or not these changes do, in fact, occur;
- o costs and delays in implementing common information and other systems and procedures and costs and delays caused by communication difficulties;
- o potential difficulty in applying our accounting controls and procedures to the members of the Ecolochem Group, which have operated as independent private companies;
- o charges to earnings resulting from the application of purchase accounting to the acquisition;
- o diversion of management resources;
- o potential incompatibility of business cultures;
- o potential losses of management and other key employees due to perceived uncertainty in career opportunities, compensation levels and benefits;
- o the retention of existing customers of each company;

-2-

- o reduction or loss of customer orders due to the potential for market confusion, hesitation and delay; and
- o coordinating infrastructure operations in a rapid and efficient manner.

We will seek to combine certain operations and functions using common information and communication systems, operating procedures, financial controls and human resource practices, including training, professional development and benefit programs. We may be unsuccessful, or experience delays, in implementing the integration of these systems and processes.

Any one or all of these factors may cause increased operating costs, worse than anticipated financial performance or the loss of customers and employees. Many of these factors are outside our control. The failure to timely

and efficiently integrate the Ecolochem Group could have a material adverse effect on our business, financial condition and operating results. In addition, the differences between the business cultures could present significant obstacles to timely, cost-effective integration of the Ecolochem Group.

We may have difficulty establishing appropriate controls and procedures on a timely basis with respect to the Ecolochem Group's financial reporting as our subsidiaries.

We have been implementing a number of measures and procedures to ensure that our disclosure controls and procedures and internal controls over financial reporting are effective. The acquisition of the Ecolochem Group will add significant business units to our operations, which, prior to the acquisition, were operated as private businesses and were not subject to the various reporting obligations imposed on publicly traded companies. We will be required to establish appropriate controls and procedures in accordance with our policies and procedures with respect to the Ecolochem Group's financial reporting. Failure to establish those controls and procedures in a timely manner, or any failure of those controls and procedures once established, could adversely impact our public disclosures regarding our business, financial condition or operating results, which may adversely impact the price of our common stock.

The debt we will incur in connection with the acquisition of the Ecolochem Group will create financial and operating risks that could limit our operating flexibility and growth.

As a result of the acquisition of the Ecolochem Group, we incurred substantial additional debt. The terms of the new credit facilities contain provisions that limit our ability to incur additional indebtedness in the future and place other restrictions on our business. We may not be able to repay any current or future debt on a timely basis, depending on our future operating results. We will be required to devote increased amounts of our cash flow to service indebtedness incurred in connection with the acquisition or incurred in the future. This could require us to modify, delay or abandon our capital expenditures and other investments necessary to implement our business plan.

A portion of this debt, as well as other short-term and long-term borrowings, will be subject to variable interest rates tied to prime rates or other indices. We will be subject to the risk that interest rates may increase significantly and increase the cost of our debt.

The success of our strategic plan to grow sales and develop relationships internationally may be limited by risks related to conducting business in international markets.

Although both Ionics and the Ecolochem Group have experience marketing and distributing their products and services and developing strategic relations in Europe and other foreign markets, part of our strategy will be to increase sales and build additional relationships in Europe and other foreign markets. Risks inherent in marketing, selling and developing relationships in European and other foreign markets include those associated with:

-3-

- Economic conditions in those markets, including fluctuations in the relative values of the U.S. dollar and foreign currencies;
- o Taxes and fees imposed by foreign governments that may increase the cost of products and services; and

o Laws and regulations imposed by individual countries and by the European Union and other governmental bodies.

We have only limited protection for our proprietary technology.

We rely on a combination of patent, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. Our success depends in part on our ability to obtain new patents and licenses and to preserve other intellectual property rights covering our products. We intend to continue to seek patents on our inventions when appropriate. The process of seeking patent protection can be time consuming and expensive and we cannot assure you that any new patent applications will be approved, that any patents that may issue will protect our intellectual property or that any issued patents will not be challenged by third parties or will be sufficient in scope or strength to provide meaningful protection or any commercial advantage to us. Other parties may independently develop similar or competing technology or design around any patents that may be issued to us. We cannot be certain that the steps we have taken will prevent the misappropriation of our intellectual property, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States.

We may become subject to infringement claims.

Although we do not believe that our products infringe the proprietary rights of any third parties, we have in the past been subject to infringement claims and third parties might assert infringement claims against us or our customers in the future. Furthermore, we may initiate claims or litigation against third parties for infringement of our proprietary rights or to establish the validity of our proprietary rights. Litigation, either as plaintiff or defendant, would cause us to incur substantial costs and divert management resources from productive tasks. Any litigation, regardless of the outcome, could harm our business.

If it appears necessary or desirable, we may seek licenses to intellectual property that we are allegedly infringing. We may not be able to obtain licenses on acceptable terms. The failure to obtain necessary licenses or other rights could harm our business.

We have many competitors and we may not be able to compete effectively.

We experience competition from a variety of sources with respect to virtually all of our products, although we do not know of any single entity that competes with us across the full range of our products, systems and services. Competition in the markets that we serve is based on a number of factors, including price, technology, applications experience, know-how, availability of financing, reputation, product warranties, reliability, service and distribution. Many of our current and potential competitors have greater name recognition and substantially greater financial, marketing and other resources than we do. These greater resources could, for example, allow our competitors to develop technology, products and services superior to our own. As a result, we may not be able to compete effectively with current or future competitors.

We may not be able to develop the new products or acquire the rights to new products necessary to remain competitive.

-4-

The water purification industry is characterized by ongoing technological developments and changing customer requirements. As a result, our success and continued growth depend, in part, on our ability to develop or acquire rights to and successfully introduce into the marketplace enhancements

of existing products or new products that incorporate technological advances, meet customer requirements and respond to products developed by our competition. There can be no assurance that we will be successful in developing or acquiring such rights to products on a timely basis or that such products will adequately address the changing needs of the marketplace.

We may not be able to adapt to changes in technology and government regulation fast enough to remain competitive.

The water purification industry is characterized by changing technology, competitively imposed process standards and regulatory requirements, each of which influences the demand for our products and services. Changes in legislative, regulatory or industrial requirements may render certain of our purification products and processes obsolete. Acceptance of new products may also be affected by the adoption of new government regulations requiring stricter standards. Our ability to anticipate changes in technology and regulatory standards and to develop and introduce new and enhanced products successfully on a timely basis will be a significant factor in our ability to grow and to remain competitive. There can be no assurance that we will be able to achieve the technological advances that may be necessary for us to remain competitive or that certain of our products will not become obsolete. In addition, we are subject to the risks generally associated with new product introductions and applications, including lack of market acceptance, delays in development, or failure of products to operate properly.

A portion of our sales is dependent upon our customers' spending cycles for capital equipment.

The sale of capital equipment within the water purification industry is cyclical and influenced by various economic factors including interest rates and general fluctuations of the business cycle. Our Equipment Business Group and our Ultrapure Water Group each derive a significant portion of its revenue from the sale of capital equipment. While we sell capital equipment to customers in diverse industries and in domestic and international markets, cyclicality of capital equipment sales and general economic conditions could have an adverse effect on our revenues and profitability.

The acquisition of the Ecolochem Group may result in a loss of customers, strategic partners and suppliers.

The acquisition of the Ecolochem Group may have the effect of disrupting customer relationships. Some of our customers or potential customers and those of the Ecolochem Group may delay or alter buying patterns as they evaluate the likelihood of successful integration of the Ecolochem Group's business following the acquisition. Other customers may seek alternative sources of products or services due to, among other reasons, a desire not to do business with us or perceived concerns that we may not continue to support certain products or services. In addition, by increasing the breadth of our business, the acquisition may make it more difficult for us to enter into relationships with customers and strategic partners, some of whom may view us as a more direct competitor than we were prior to the acquisition. Therefore, we could experience some customer attrition as a result of the acquisition.

Difficulties in integrating operations could also result in the loss of strategic partners and suppliers and potential disputes or litigation with customers, strategic partners, suppliers, resellers or others. There can be no assurance that any steps by management to counter such potential increased customer, strategic partner or supplier attrition will be effective.

Failure by management to control customer, strategic partner and supplier attrition could have a material adverse effect on our business, financial condition and operating results.

-5-

The results of operations of the Ecolochem Group tend to fluctuate because of the weather conditions that affect its customers.

Demand for the mobile water treatment services offered by the Ecolochem Group tends to increase during periods of severe hot or cold weather resulting in increased revenues and earnings. The absence of severe weather may adversely impact the revenue and operating results of the Ecolochem Group.

We must comply with significant environmental regulations, which can be difficult and expensive.

We are subject to a variety of federal, state and local governmental regulations related to the use, storage, discharge and disposal of toxic, volatile or otherwise hazardous chemicals used in our manufacturing processes. Although we believe that our activities conform to presently applicable environmental regulations, the failure to comply with present or future regulations could result in fines being imposed on us, suspension of production or a cessation of operations. Any failure by us to control the use of, or adequately restrict the discharge of, hazardous substances, or otherwise comply with environmental regulations, could subject us to significant future liabilities. In addition, we cannot assure you that past use or disposal of environmentally sensitive materials in conformity with then existing environmental laws and regulations will not result in remediation or other significant liabilities under current or future environmental laws or regulations.

We depend on key personnel, the loss of whom could harm our business.

We have been and are presently dependent upon the continued efforts of our senior management team, including Douglas R. Brown, our President and Chief Executive Officer. The loss of the services of Mr. Brown or any other members of our senior management team could have a material adverse effect on our ability to achieve our objectives. We entered into an employment agreement with Mr. Lyman Dickerson, the President of Ecolochem, Inc., with the intent of providing Mr. Dickerson with sufficient incentive to remain employed by us. However, it cannot be assured that he will remain employed with us.

The loss of our key personnel, including those of the Ecolochem Group, could adversely affect our ability to manage our business. We believe that the continued service of our executive officers and the executive officers of the Ecolochem Group will be important to our future growth and competitiveness. Our employees and those of the Ecolochem Group are entitled to voluntarily terminate their relationship with us or with the Ecolochem Group, typically without any, or with only minimal, advance notice. The process of finding additional trained personnel to carry out our strategy could be lengthy, costly and disruptive. We might not be able to retain the services of all of our or the Ecolochem Group's key employees or a sufficient number of them to execute our plans. In addition, we might not be able to continue to attract new employees as required.

The loss of the services of any member of our or the Ecolochem Group's management team, or of any other key employee, could divert management's time and attention, increase our expenses and adversely affect our ability to conduct our business efficiently.

If we are unable to continue to hire and retain skilled technical and scientific personnel, then we will have trouble developing products.

Our success depends largely upon the continued service of our

management and scientific staff and our ability to attract, retain and motivate highly skilled scientific, management and marketing personnel. We face significant competition for such personnel from other companies, research and academic institutions, government and other organizations who may better be able to attract such personnel. The loss of key personnel or our inability to hire

-6-

and retain personnel who have technical and scientific backgrounds could materially adversely affect our product development efforts and our business.

If certain intangible assets acquired in the acquisition of the Ecolochem Group subsequently become impaired, we may be required to write off, or reduce the value of, those intangible assets, which would adversely impact our financial results during the periods in which they occur.

We currently expect to record approximately \$183.8 million of goodwill and \$73 million of other intangible assets in connection with the acquisition of the Ecolochem Group. Goodwill associated with the acquisition will be required to be tested at least annually for impairment. Other intangible assets will be amortized over their estimated useful lives. If the goodwill or other intangible assets are deemed to be impaired in the future, we will be required to reduce the value of those assets or to write them off completely, which would reduce our reported financial results during the periods in which such determination is made. If we are required to write down or write off all or a portion of those assets, or if financial analysts or investors believe we may be required to take such action in the future, the prices at which our common stock trades may be adversely affected.

We may not derive any income tax benefits from the tax election which we currently intend to make.

We may elect to make, with the former shareholders of Ecolochem, Inc. and Ecolochem International, Inc., an election under Section 338(h)(10) of the Internal Revenue Code of 1986, as amended (the "Code"), with respect to the acquisition of Ecolochem, Inc., Ecolochem International, Inc. or both. If a valid election is made under Section 338(h)(10) of the Code, we will generally be able to treat the acquisition of the stock of any company with respect to which such election is made as if new subsidiaries of ours had acquired the assets of such company in a taxable transaction for federal income tax purposes, and, as a result, after the acquisition, the assets of such company will have a tax basis generally equal to the cash and other property paid by us for such company plus any liabilities of such company that are assumed in the transaction.

The principal tax advantage of making an election under Section 338(h)(10) of the Code is that our new subsidiary or subsidiaries, as the case may be, will be able to depreciate or amortize the new federal income tax basis of depreciable or amortizable assets over time periods specified in the Code. For intangible assets, that time period is generally 15 years.

We may not be eligible to make an election under Section 338(h)(10) of the Code with respect to Ecolochem, Inc., Ecolochem International, Inc. or both. Currently, we intend to make an election under Section 338(h)(10) of the Code only with respect to Ecolochem, Inc., but we may conclude to make an election under Section 338(h)(10) of the Code with respect to Ecolochem International, Inc. as well. Furthermore, even if a valid election under Section 338(h)(10) of the Code is made, the depreciation and amortization deductions with respect to certain assets acquired from the Ecolochem Group may not be available to us. As a result, your decision to buy our common stock should not be based on any tax benefits associated with such an election or on any other tax benefits

associated with the acquisition.

If we make an election under Section 338(h)(10) of the Code, we will be required to pay additional amounts to certain of the former owners of the Ecolochem Group. These amounts will be significant.

We will be subject to significant influence by the former owners of the Ecolochem Group.

The former owners of the Ecolochem Group will beneficially own approximately 19.5% of our common stock. As a result, they have a strong influence on matters requiring approval by our stockholders, such as the election of directors and most corporate actions, including mergers and

-7-

acquisitions. In addition, the former owners of the Ecolochem Group will be entitled to designate two members of our Board of Directors. These directors will have the opportunity to participate in all matters brought before the Board of Directors. Moreover, Mr. Lyman Dickerson, the President of Ecolochem, Inc., will have the opportunity to become the Chairman of our Board of Directors pursuant to the terms of the Stockholders Agreement to be entered into in connection with the acquisition of the Ecolochem Group. Collectively, these arrangements will allow the former owners of the Ecolochem Group to have significant participation in matters affecting us.

Future sales of our common stock by the former owners of the Ecolochem Group could depress the market price of our common stock.

While the former owners of the Ecolochem Group will be subject to restrictions on their ability to resell a portion of the shares of common stock issued to them in connection with our acquisition of the Ecolochem Group during the six months following the closing of the acquisition, they will be entitled to dispose of a significant number of shares in the public market, which could cause the market price of our common stock to decrease significantly. All of the former owners of the Ecolochem Group are required to enter into an agreement under which they agree not to sell more than 10% of the shares of common stock issuable to them in the acquisition for a period of six months following the closing of the acquisition, subject to certain exceptions. Such restrictions will lapse six months after the closing of the acquisition and the former owners of the Ecolochem Group will then have no limitations on the number of shares they can sell in the public market. If such persons sell a significant number of shares of the common stock in the open market, our stock price could decline.

Failure of any of the members of the Ecolochem Group to be a "pass-through" entity for United States federal and other tax purposes could increase our cost of the cost of the acquisition.

The owners of the Ecolochem Group have represented in the purchase agreement that each of the members of the Ecolochem Group is a "pass-through" entity for United States federal income tax purposes. Specifically, the owners of the Ecolochem Group have represented that each of Ecolochem and Ecolochem International, Inc. is a "Subchapter S Corporation" under the Code, and that each of Moson Holdings, LLC and Ecolochem S.A.R.L. is treated as a "partnership" under the Code for federal tax purposes. Accordingly, except in limited circumstances, the Ecolochem Group does not, and has not for a substantial period, paid income taxes at the entity level either to the United States or to many state and local jurisdictions (with certain exceptions). If it were ultimately determined that any member of the Ecolochem Group was not a valid pass-through entity for tax purposes, that entity could be subject to tax, penalties, additions to tax and interest for prior periods. The owners of the

Ecolochem Group are required to indemnify us for any taxes attributable to periods prior to the acquisition, but there can be no assurance that any such amount will actually be paid. Any significant tax, penalties, additions to tax and interest for prior periods which we pay and for which we are not indemnified by the owners of the Ecolochem Group could have a material adverse effect on our business, financial condition and operating results.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

Certain statements and assumptions contained, or incorporated by reference, in this prospectus constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements include those that predict, forecast, indicate or imply future results, performance or achievements.

Any statements contained in this prospectus, including statements to the effect that Ionics or its management "believes," "expects," "anticipates," "plans," "may," "will," "projects," "continues," or "estimates" or statements concerning "potential" or "opportunity" or other variations thereof or

-8-

comparable terminology or the negative thereof, that are not statements of historical fact should be considered forward-looking statements.

These forward-looking statements are based on current views and assumptions and are neither promises nor guarantees but are subject to risks, uncertainties and other factors that could cause actual results to differ materially from current expectations as described in such forward-looking statements. In connection with the forward-looking statements appearing in this prospectus, you should carefully consider the matters discussed under the caption "Risk Factors" beginning on page 1, and the other risk factors described in Ionics' filings with the SEC, including its Proxy Statement dated January 9, 2004 and its Annual Report on Form 10-K for the year ended December 31, 2002, as amended. We do not assume any obligation to update any forward-looking statement we make, except as required by law.

-9-

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of our common stock by the selling stockholders. The selling stockholders will receive all of the net proceeds from any sale of the shares of common stock being sold by the selling stockholders pursuant to this prospectus.

The selling stockholders will pay any underwriting discounts and commissions, all transfer taxes, and all expenses incurred by the selling stockholders for brokerage, accounting, tax or legal services (except that we have agreed to pay the fees and disbursements of one law firm representing the selling stockholders on behalf of the selling stockholders) or any other expenses incurred by the selling stockholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, New York Stock Exchange listing fees and fees and expenses of one counsel

to the Ecolochem Selling Stockholders and our accountants.

SELLING STOCKHOLDERS

The following table sets forth, to our knowledge, the name and number of shares of our common stock beneficially owned by each of the selling stockholders. With respect to the Ecolochem Selling Stockholders, the information is provided as of February 17, 2004. With respect to Ruthal Limited, the information is provided as of the date hereof. Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission, and includes voting or investment power with respect to shares. Unless otherwise indicated below, to our knowledge, all persons named in the table have sole voting and investment power with respect to their shares of common stock and except as set forth in the footnotes to the table. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the person or trust named below. The table has been prepared on the basis of information furnished to us by or on behalf of the selling stockholders. As of February 6, 2004, there were approximately 17,925,036 shares of our common stock outstanding.

Name of Selling Stockholder	Shares of Common Stock Beneficially Owned Prior to Offering(1)		Number of Shares Of Common Stock Being Offered Pursuant to this	Sha Own
	Number	Percent	Prospectus(2)	N
The Lyman B. Dickerson Revocable Trust dated September 9, 1996 or any Successor Trustee, as amended (4)	0	*	2,163,250	
The Douglas G. Dickerson Revocable Trust dated June 22, 1988 or any Successor Trustee, as amended (5)	0	*	971 , 382	
The Richard Dickerson Revocable Trust dated March 5, 1993, or any Successor Trustee, as amended (6)	0	*	971,382	
The Lyman Dickerson Irrevocable Trust, dated July 1, 1991 (7)	0	*	289,580	
The Douglas Dickerson Irrevocable Trust No. 3, dated July 1, 1991 (8)	0	*	130,033	
The Richard Dickerson Irrevocable Trust No. 3, dated July 1, 1991 (9)	0	*	130,033	
Ruthal Limited(101)	38,900	*	10,000	3

 $^{^{\}star}$ Less than one percent.

-10-

(1) In connection with the consummation of our acquisition of the Ecolochem Group each of the Ecolochem Selling Stockholders will agree not to transfer, during the six months following the consummation of the

- acquisition, more than 10% of the shares of our common stock issued to them by us in connection with the acquisition other than transfers to certain related persons. Each of the Ecolochem Selling Stockholders will also agree to certain restrictions on the sale or other transfer of such shares of our common stock to certain competitors of ours.
- (2) Pursuant to Rule 416 under the Securities Act of 1933, as amended, this prospectus will also cover an indeterminable number of additional shares of common stock that may be issued to prevent dilution resulting from stock splits, stock dividends or similar transactions affecting the shares to be offered by the selling stockholders.
- (3) Notwithstanding the foregoing, we do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders may sell any or all of the shares offered by this prospectus. Because the selling stockholders. may offer all or some of the shares pursuant to this offering, and because there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling stockholders.
- (4) Lyman B. Dickerson, as sole trustee, holds sole voting and dispositive power with respect to these shares. (5) Douglas G. Dickerson, as sole trustee, holds sole voting and dispositive power with respect to these shares. (6) Douglas G. Dickerson and Marguerite W. Dickerson, as co-trustees, share voting and dispositive power with respect to these shares.
- (7) Lyman B. Dickerson, as trustee and Charles C. Kline, as independent trustee share voting and dispositive power with respect to these shares.
- (8) Douglas G. Dickerson, as trustee and Frederick T. Stant, III, as independent trustee share voting and dispositive power with respect to these shares.
- (9) Douglas G. Dickerson and Marguerite W. Dickerson as co-trustees and Frederick T. Stant, as independent trustee, share voting and dispositive power with respect to these shares.
- (10) As of the date of this prospectus, Ruthal Limited is the owner of 30,400 shares of our common stock. The shares of our common stock to be registered for resale hereunder by Ruthal Limited may be obtained through Ruthal Limited's exercise of outstanding options to purchase our common stock. On March 21, 1995 we entered into an Option Agreement with Ruthal Limited that permitted the exercise by Ruthal Limited of 500 shares of our common stock on March 21, 1996 and an additional 500 shares on and after each succeeding anniversary of such date. At present, 4,000 of such shares are fully exercisable and 4,500 of such shares are deemed to be beneficially owned by Ruthal Limited. On June 1, 1995 we entered into an Option Agreement with Ruthal Limited that permitted the exercise by Ruthal Limited of 500 shares of our common stock on March 21, 1996 and an additional 500 shares on and after each succeeding anniversary of such date. At present, 4,000 of such shares are fully exercisable.

Each of the Ecolochem Selling Stockholders received the shares of our common stock held by them in connection with the consummation of our acquisition of Ecolochem, Inc. and its affiliated companies. We appointed Mr. Lyman Dickerson to our Board of Directors shortly after the closing of the acquisition. Mr. Lyman Dickerson has substantial direct and indirect interests in the acquisition. Each of the Ecolochem Selling Stockholders may be considered associates of Mr. Lyman Dickerson under the rules of the Securities Exchange Act of 1934, as amended. In addition, upon the closing of the acquisition, we entered into an employment agreement with Mr. Lyman Dickerson. The terms of this agreement provide that Mr. Lyman Dickerson will be employed as the Vice President of our Water Systems Division (which includes, among other operations, the Ecolochem Group and its respective subsidiaries and our Ultrapure Water and

Industrial Water operations). In this position, Mr. Lyman Dickerson will be the senior executive officer for the Division and will be responsible for managing the integration of the Ecolochem Group with our existing operations. The term of this agreement is for two years unless sooner terminated for "cause" (as defined therein) or under certain other circumstances. Under the terms of his employment

-11-

agreement, Mr. Lyman Dickerson will be entitled to, among other things: an initial base annual salary of \$250,000; participation in our executive bonus program and stock option plans (as determined by our Board of Directors); participation in our benefit plans; and a severance benefit should his employment agreement be terminated by us prior to the expiration of its term for reasons other than "cause".

Each selling stockholder represented to us that he or it acquired the shares of common stock for investment and not with a view to any public distribution thereof in violation of any of the registration requirements of the Securities Act of 1933, as amended. In addition, each selling stockholder has represented that he or it qualifies as an "accredited investor" as such term is defined in Rule 501 of Regulation D under the Securities Act of 1933, as amended.

In recognition of the fact that the Ecolochem Selling Stockholders may desire the ability to sell the shares when they consider it appropriate, in connection with the acquisition we agreed to file with the Securities and Exchange Commission a registration statement (of which this prospectus is a part) to permit the resale of the shares from time to time and to use our commercially reasonable efforts to keep the registration statement effective, solely with respect to the shares held by the Ecolochem Selling Stockholders, for the period from effectiveness of the registration statement of which this prospectus forms a part until the first date on which (i) the Ecolochem Selling Stockholders cease to hold in the aggregate a number of shares of common stock equal to the lesser of (a) at least 5% of the number of outstanding shares of our common stock as of February 12, 2004 and (b) at least 5% of the number of outstanding shares of our Common Stock as of the date of measurement; (ii) following the first anniversary of the date hereof, the number of outstanding shares of our common stock which were first issued to the Ecolochem Selling Stockholders in connection with the consummation of the acquisition of Ecolochem, Inc. and its affiliated companies (and any securities issued or distributed in respect of such shares by way of conversion, dividend, stock split or other distribution, merger, consolidation, exchange, recapitalization or reclassification) and are still held by the former owners of the Ecolochem Group and their permitted assigns equal less than 1% of our then outstanding shares of our common stock, or (iii) no Ecolochem Selling Stockholder or its permitted assigns is an "affiliate" of ours as such term is defined in Rule 144 of the Securities Act of 1933, as amended and all shares of our common stock first issued to the selling stockholders in connection with the consummation of the acquisition of Ecolochem, Inc. and its affiliated companies (and any securities issued or distributed in respect of such shares by way of conversion, dividend, stock split or other distribution, merger, consolidation, exchange recapitalization or reclassification) may be sold in a single transaction under Rule 144(k) of the Securities Act of 1933, as amended.

Based on representations by the selling stockholders, to the best of our knowledge, none of the owners of the Ecolochem Group had a material relationship with us or any of our affiliates within the three-year period ending on the date of this prospectus.

PLAN OF DISTRIBUTION

The shares of our common stock covered by this prospectus may be offered and sold from time to time by the selling stockholders. The term "selling stockholders" includes pledgees, donees, transferees, designees, or other successors-in-interest selling shares received after the date of this prospectus from a selling stockholder as a gift, pledge, distribution of trust proceeds or other non-sale related transfer provided that any such pledgee, donee, transferee, designee or other successor-in-interest is either (i) another selling stockholder, (ii) the spouse, child, grandchild, aunt, uncle, niece or nephew of any selling stockholder, (iii) an heir, executor, administrator, testamentary trustee, legatee or beneficiary of any selling stockholder or (iv) a trust, the beneficiaries of which, or a corporation or partnership, the stockholders or general and limited partners of which, include only one or more of the persons specified in clauses (i), (ii) and (iii). The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one more exchanges or in the over-the-counter market or otherwise, at prices and under

-12-

terms then prevailing or at prices related to the then-current market price or in negotiated transactions. The selling stockholders may sell their shares by one or more of, or a combination of, the following methods:

- o purchases by a broker-dealer as principal and resale by such broker-dealer for it own account pursuant to this prospectus;
- o ordinary brokerage transactions and transactions in which the broker solicits purchasers
- o block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- o in privately negotiated transactions;
- o in options transactions; and
- o through other means.

In addition, any shares that qualify for sale pursuant to Rule 144 of the Securities Act of 1933, as amended, may be sold under Rule 144 rather than pursuant to this prospectus. No selling stockholder has entered into any agreement with a prospective underwriter and there is no assurance that any such agreement will be entered into.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the shares or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the common stock in the course of hedging the positions they assume with selling stockholders. The selling stockholders may also sell the common stock short and redeliver the shares to close out such short positions. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling stockholders may also pledge shares to a broker-dealer or other financial

institution, and, upon a default, such broker-dealer or other financial institution, may effect sales of the pledged shares pursuant to this prospectus (as supplemented or amended to reflect such transaction).

In effecting sales, broker-dealers or agents engaged by the selling stockholders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling stockholders in amounts to be negotiated immediately prior to the sale.

In offering the shares covered by this prospectus, the selling stockholders and any broker-dealers who execute sales for the selling stockholders may be deemed to be "underwriters" within the meaning of the Securities Act of 1933, as amended, in connection with such sales. Any profits realized by the selling stockholders and compensation of any broker-dealer may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain jurisdictions, the shares offered by this prospectus may need to be offered or sold in such jurisdictions only through registered or licensed brokers or dealers.

Under applicable rules and regulations under the Securities Exchange Act of 1934, any person engaged in a distribution of the shares of common stock covered by this prospectus may be limited in their ability to engage in market activities with respect to such shares. The selling stockholders, for example, will be subject to applicable provisions of the Securities Exchange Act of 1934

-13-

and the rules and regulations under it, including, without limitation Regulation M, which provisions may restrict certain activities of the selling stockholders and limit the timing of purchases and sales of any shares of common stock by the selling stockholders. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions, subject to specified exceptions or exemptions. The foregoing may affect the marketability of the shares offered by this prospectus.

We have agreed to pay the fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, New York Stock Exchange listing fees, and fees and expenses of our counsel, one counsel to the Ecolochem Selling Stockholders and our accountants. The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders in disposing of the shares. We will not receive any of the proceeds from the sale of our common stock by the selling stockholders.

We have agreed to indemnify the selling stockholders against certain liabilities, including certain liabilities under the Securities Act of 1933, as amended.

We have agreed to use our commercially reasonable efforts to keep the registration statement effective, solely with respect to the shares held by the Ecolochem Selling Stockholders, for the period from effectiveness of the registration statement of which this prospectus forms a part until the first date on which (i) the Ecolochem Selling Stockholders cease to hold in the aggregate a number of shares of common stock equal to the lesser of (a) at least 5% of the number of outstanding shares of our common stock as of the close of business on February 12, 2004 and (b) at least 5% of the number of outstanding shares of our common stock at the date of measurement; (ii) following the first anniversary of the date hereof, the number of outstanding shares of our common

stock which were first issued to the Ecolochem Selling Stockholders in connection with the consummation of the acquisition of Ecolochem, Inc. and its affiliated companies (and any securities issued or distributed in respect of such shares by way of conversion, dividend, stock split or other distribution, merger, consolidation, exchange, recapitalization or reclassification) and are still held by the Ecolochem Selling Stockholders and their permitted assigns equal less than 1% of our then outstanding shares of our common stock, or (iii) no Ecolochem Selling Stockholder or its permitted assigns is an "affiliate" of ours as such term is defined in Rule 144 of the Securities Act of 1933, as amended, and all shares of our common stock first issued to the Ecolochem Selling Stockholders in connection with the consummation of the acquisition of Ecolochem, Inc. and its affiliated companies (and any securities issued or distributed in respect of such shares by way of conversion, dividend, stock split or other distribution, merger, consolidation, exchange recapitalization or reclassification) may be sold in a single transaction under Rule 144(k) of the Securities Act of 1933, as amended. We may suspend the rights of the Ecolochem Selling Stockholders to resell shares under this prospectus under certain limited circumstances.

Equiserve Trust Company, N.A., 150 Royall Street, Canton, MA 02021, is the transfer agent for the shares of our common stock.

LEGAL MATTERS

The validity of the shares of our common stock offered hereby will be passed upon for us by Stephen Korn, Vice President and General Counsel of Ionics. Mr. Korn beneficially owns 128,816 shares of our common stock, which number includes 128,829 shares subject to options, as to which Mr. Korn has the right to acquire beneficial ownership, and 1,606 shares (as of February 6, 2004) in our Section 401(k) Plan for the account of Mr. Korn.

-14-

EXPERTS

The consolidated financial statements as of December 31, 2002 and 2001 and for each of the three years in the period ended December 31, 2002 incorporated in this Prospectus by reference to Ionics, Incorporated's Current Report on Form 8-K dated December 24, 2003, have been so incorporated in reliance on the reports of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

The combined financial statements of the Ecolochem Group incorporated in this prospectus by reference to our Proxy Statement dated January 9, 2004, have been so incorporated in reliance upon the report of KPMG LLP, independent accountants given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file with the Securities and Exchange Commission at the Securities and Exchange Commission's public reference room at 450 Fifth Street, N.W., Washington, D.C. 20549. You should call the Securities and Exchange Commission at 1-800-SEC-0330 for further information on operation of the public reference room. Our Securities and Exchange Commission filings are also available to the public from the Securities and Exchange Commission's Internet site at http://www.sec.gov and from our Internet site at http://www.ionics.com. In addition, these materials may be read at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the Securities and Exchange Commission at the address listed above or from the Securities and Exchange Commission's Internet site.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The Securities and Exchange Commission allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. We incorporate by reference the following documents:

- (a) Our Annual Report on Form 10-K for the fiscal year ended December 31, 2002, as amended, as amended by Form 10-K/A filed with the SEC on April 1, 2003, Form 11-K filed with the SEC on June 26, 2003 and Form 10-K/A filed with the SEC on October 2, 2003;
- (b) Our Proxy Statement filed with the SEC on January 9, 2004 pursuant to the Securities Exchange Act of 1934, as amended, which contains the audited combined financial statements for the Ecolochem Group as of September 30, 2003 and 2002, and for each of the years in the three-year period ended September 30, 2003 and the unaudited pro forma combined condensed balance sheet as of September 30, 2003 and the unaudited pro forma combined condensed statements of operations for the nine months ended September 30, 2003 and the fiscal year ended December 31, 2002, and the additional proxy solicitation materials filed with the SEC on January 15, 2004 pursuant to the Securities Exchange Act of 1934, as amended;
- (c) Our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2003 (as amended by Form 10-Q/A filed with the SEC on October 2, 2003), June 30, 2003 and September 30, 2003;

-15-

- (d) Our Current Reports on Form 8-K filed on May 6, 2003, August 1, 2003, October 7, 2003, November 4, 2003, November 19, 2003, November 26, 2003 and December 24, 2003 (which contains our audited financial statements as of December 31, 2002 and 2001 and for each of the years in the three-year period ended December 31, 2002); and
- (e) The section entitled "Description of Registrant's Securities to be Registered" contained in our Registration Statement on Form 8-A, filed with the SEC on September 27, 1990 pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

All documents we file with the Securities and Exchange Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this prospectus and prior to the earlier of the sale of all the shares of common stock covered by this prospectus and the termination of the offering of the shares of common stock covered by this prospectus shall be deemed incorporated by reference into this prospectus and to be a part hereof from the date of filing of such documents.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purpose of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be

incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the information that has been incorporated by reference in this prospectus (including any exhibits to such documents that are specifically incorporated by reference in that information, but excluding other exhibits to such documents) but not delivered with this prospectus. You may request a copy of these documents at no cost, by writing or telephoning Stephen Korn, Clerk, Ionics, Incorporated, 65 Grove Street, Watertown, MA 02472-2882, telephone (617) 673-4450.

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission. You should rely only on the information incorporated by reference, provided in this prospectus, or any supplement that we have referred you to. We have authorized no one to provide you with different information. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents. However, you should realize that the affairs of Ionics may have changed since the date of this prospectus. This prospectus will not reflect such changes. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.