

Ecolab Inc. and Ecolab USA Inc. (collectively “Ecolab” or “Plaintiffs”), for their Complaint, states and alleges as follows:

1. Plaintiffs Ecolab are corporations duly organized and existing under the laws of the State of Delaware and have a principal place of business at Ecolab Center, 1 Ecolab Place, St. Paul, Minnesota 55102.

2. Defendant PureLine Treatment Systems, LLC, is a corporation existing under the laws of the State of Delaware, and has a principal place of business at 1241 Ellis Street, Bensenville, IL 60106. PureLine Treatment Systems, LLC, is registered to do

business in the State of Illinois. Defendant PureLine Solutions, LLC, is a corporation existing under the laws of the State of Illinois, and has a principal place of business at 1241 Ellis Street, Bensenville, IL 60106. The Defendants are referred to collectively as “PureLine” or “Defendants.”

3. Ecolab and PureLine are both involved and active in the sale of chemical additives for industrial processes such as water purification. PureLine has used, sold and is currently selling for use by its customers chlorine dioxide generators and a precursor chemical product called PureMax for use in water and process treatment.

JURISDICTION AND VENUE

4. This is a claim of patent infringement arising under the Acts of Congress relating to patents, 35 U.S.C. §§ 271, 281-285, and for trademark infringement and unfair competition under the Lanham Act, 15 U.S.C. § 1051 *et seq.*

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331, 1332, 1338(a) and 1338(b). The amount in controversy, exclusive of costs and interest, exceeds seventy-five thousand dollars (\$75,000.00).

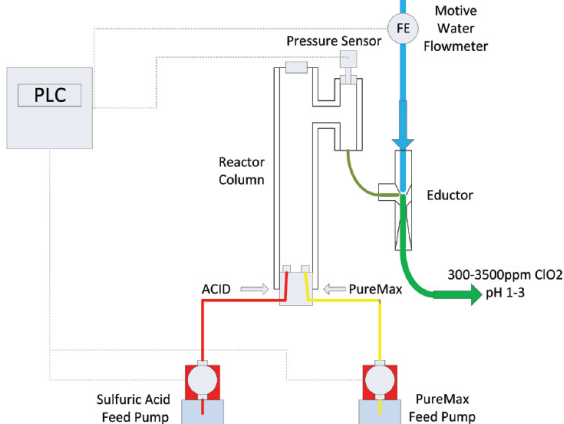
6. Personal jurisdiction and venue in this District are proper under 28 U.S.C. § 1391 and 1400(b). PureLine resides in this District, has a regular and established place of business in this District, and has committed acts of infringement here.

COUNT I**Patent Infringement of U.S. Patent No. 5,895,638**

7. On April 20, 1999, United States Patent No. 5,895,638 (“the ’638 patent”) entitled Method of Producing Chlorine Dioxide was duly and legally issued to Akzo Nobel N.V. (“Akzo Nobel”). Akzo Nobel subsequently assigned the ’638 patent to Nalco, which thereafter assigned it to Ecolab. Ecolab is the owner of the entire right, title and interest in and to the ’638 patent. Ecolab has been the owner of the patent throughout the period of Defendants’ infringement, and Ecolab is still the owner thereof. The ’638 patent is attached as Exhibit A. A reexamination certificate issued on January 7, 2003. The ’638 patent expired on March 20, 2017.

8. Defendants’ use of certain methods for producing chlorine dioxide, including the use of chlorine dioxide generators and PureMax, directly and indirectly infringed the ’638 patent, which infringing use predated the expiration of the ’638 patent. Defendants have used PureMax and chlorine-dioxide generators in ways that infringed the ’638 patent. Specifically, Defendants’ use of PureMax infringed at least claim 15 of the ’638 patent:

15. A process of producing chlorine dioxide by the reduction of chlorate ions with hydrogen peroxide as a reducing agent in the presence of sulfuric acid in a tubular reactor comprising the steps of:	PureMax is and was used to produce chlorine dioxide by the reduction of chlorate ions with hydrogen peroxide as a reducing agent in the presence of sulfuric acid in a tubular reactor.
(a) feeding hydrogen peroxide, an alkali metal chlorate and sulfuric acid at one	PureLine fed, or instructed its customers to feed, sulfuric acid and PureMax, which includes an alkali

<p>end of the tubular reactor to form a reaction mixture, wherein the molar ratio $H_2O_2 : ClO_3^-$ is from about 0.5:1 to about 2:1, and wherein the alkali chlorate has less than about 0.5 wt % of alkali metal chloride and wherein the sulfuric acid feed has a concentration from about 70 to about 96 wt %;</p>	<p>metal chlorate (sodium chlorate) and hydrogen peroxide, into one end of a tubular reactor (reactor column) to form a reaction mixture.</p>  <p>(CG-Series-Generator_SpecSheet_092117.)</p> <p>The molar ratio of PureMax was and is between about 0.5:1 and about 2:1. The alkali chlorate (sodium chlorate) in PureMax had and has less than about 0.5 wt% of alkali metal chloride.</p> <p>The sulfuric acid feed had and has a concentration from about 70 to about 96 wt %, specifically about 78%.</p>
<p>(b) reducing chlorate ions in the reaction mixture in said tubular reactor to form chlorine dioxide; and</p>	<p>PureLine, and its customers, reduced the chlorate ions in the reaction mixture in the reactor to form chlorine dioxide. (Green arrow above.)</p>
<p>(c) recovering a product containing chlorine dioxide at the other end of said tubular reactor, wherein from about 2 to about 10 kg H_2SO_4 is fed per kg ClO_2 produced.</p>	<p>PureLine, and its customers, recovered chlorine dioxide from the reactor. (Green arrow above.) About 2 to about 10 kg H_2SO_4 (sulfuric acid) is fed per kg ClO_2 (chlorine dioxide) produced, specifically about 4 kg.</p>

9. Defendants also contributed to the infringement of the '638 patent by selling and offering for sale chemical products, including PureMax, to customers and instructed their customers on how to use those chemicals in a way that infringed the '638 patent.

10. Defendants' chemical products, including at least PureMax, comprised a material part of the claimed invention of the '638 patent, were not (and are not) staple articles of commerce, and had/have no substantial non-infringing uses. When used according to Defendants, the use of Defendants' chemical products, including at least PureMax, infringed the '638 patent prior to its expiration.

11. Defendants were aware of the '638 patent during the period of infringement due at least to the parties' prior supply agreements, and knowingly offered their chemical products, including PureMax, for use in a process that is claimed in the '638 patent.

12. Defendants' customers, specifically those that purchased Defendants' chemical products including PureMax for use in water decontamination, also directly infringed the '638 patent by using PureMax in accordance with a process that embodies the invention of the '638 patent. Defendants knew that its customers used, and indeed instructed its customers to use, its chemical products including PureMax in a manner that infringed the '638 patent.

13. Defendants also induced infringement of the '638 patent by selling chemical products including PureMax and instructing the customers to use the chemical products in accordance with instructions that infringed the '638 patent. Defendants also assisted their customers in using the chemical products including PureMax in ways that infringed the '638 patent.

14. Defendants have been aware of the '638 patent and knew that its sale and instructions for use of the same induced Defendants' customers to directly infringe the

'638 patent. Defendants' knowledge of the '638 patent, combined with Defendants' instructions for use of the chemical products including PureMax in the manner specified by the '638 patent, demonstrate that Defendants intended to induce their customers to infringe the '638 patent.

15. When using Defendants' chemical products as instructed by Defendants, Defendants' customers directly infringed the '638 patent by using at least PureMax in ways that embodied the invention of the '638 patent.

16. Defendants had notice of the '638 patent and its infringement thereof.

17. Defendants' infringement of the '638 patent was willful and deliberate.

18. Plaintiffs have been damaged by Defendants' infringement of the '638 patent in an amount to be proven at trial.

COUNT II

Patent Infringement of U.S. Patent No. 6,790,427

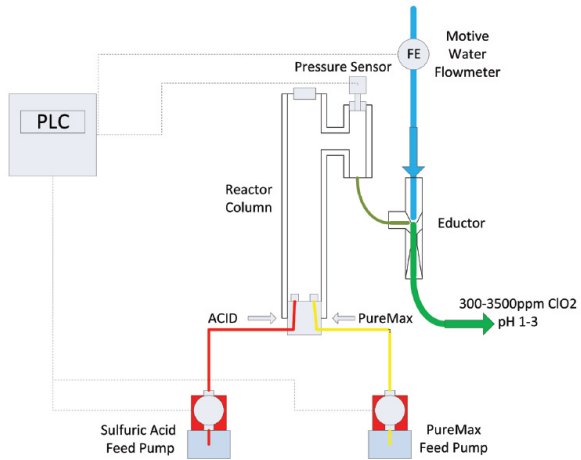
19. Ecolab incorporates the allegations of the foregoing paragraphs of this Complaint.

20. On September 14, 2004, United States Patent No. 6,790,427 ("the '427 patent") entitled Process for Producing Chlorine Dioxide was duly and legally issued to Eka Chemicals, Inc, which subsequently assigned it to Nalco. Nalco then assigned all right, title and interest in the '427 patent to Ecolab. Ecolab is the owner of the entire right, title and interest in and to the '427 patent. Ecolab has been the owner of the patent

throughout the period of Defendants' infringement, and Ecolab still is the owner thereof.

The '427 patent is attached as Exhibit B.

21. Defendants' use of certain methods for producing chlorine dioxide, including the use of chlorine dioxide generators and PureMax, directly and indirectly infringe the '427 patent. Specifically, Defendants' use of PureMax infringes at least claim 1 of the '427 patent:

1. Process for continuously producing chlorine dioxide comprising the steps of:	PureLine, and its customers, continuously produce chlorine dioxide using PureMax in a chlorine dioxide generator.
feeding chlorate ions, acid and hydrogen peroxide as aqueous solutions to a reactor;	PureLine, and its customers, feed acid (sulfuric acid (red arrow)) and PureMax (yellow arrow), which includes chlorate ions (sodium chlorate) and hydrogen peroxide, into a reactor: 
reducing chlorate ions in the reactor to chlorine dioxide, thereby forming a product stream in the reactor containing chlorine dioxide;	(CG-Series-Generator SpecSheet 092117.) The chlorate ions are reduced in the reactor to form chlorine dioxide, which forms a product stream (green arrow).
feeding motive water in an eductor comprising a nozzle;	Water is added through an eductor nozzle. (Blue arrow.)
bringing the motive water to flow through the nozzle and causing it to flow further through the eductor in an at least partially spiral or helical manner;	Based on at least the concentration range, upon information and belief, the motive water flows through the eductor in a spiral or helical manner.
transferring the product stream from the reactor	The chlorine dioxide stream is mixed with the

to the eductor and mixing it with the motive water and thereby forming a diluted aqueous solution containing chlorine dioxide, and;	motive water to form a diluted aqueous solution containing chlorine dioxide. (Green arrow.)
withdrawing the diluted aqueous solution containing chlorine dioxide from the eductor.	The diluted aqueous chlorine dioxide is withdrawn. (Green arrow.)

22. Defendants also contribute to the infringement of the '427 patent by selling and offering for sale chemical products, including PureMax, to customers and instruct their customers on how to use those chemicals in ways that infringe the '427 patent.

23. Defendants' chemical products, including at least PureMax, comprise a material part of the claimed invention of the '427 patent, are not staple articles of commerce, and have no substantial non-infringing uses. When used according to Defendants, the use of Defendants' chemical products, including at least PureMax, infringes the '427 patent.

24. Defendants were aware of the '427 patent at the time their infringement began due at least to the parties' prior supply agreements, and knowingly offer their chemical products, including PureMax, for use in a way that is claimed in the '427 patent.

25. Defendants' customers, specifically those that purchase Defendants' chemical products including PureMax for use in water decontamination, also directly infringe the '427 patent by using PureMax in accordance with a process that embodies the invention of the '427 patent. Defendants knew that its customers' use, and indeed instruct its customers to use, its chemical products including PureMax in a manner that infringes the '427 patent.

26. Defendants also induce infringement of the '427 patent by selling chemical products including PureMax and instructing the customers to use the chemical products in accordance with instructions that infringe the '427 patent. Defendants also assist their customers in using the chemical products including PureMax in ways that infringe the '427 patent.

27. Defendants have been aware of the '427 patent and knew that its sale and instructions for use of the same induce Defendants' customers to directly infringe the '427 patent. Defendants' knowledge of the '427 patent, combined with Defendants' instructions for use of the chemical products including PureMax in the manner specified by the '427 patent, demonstrate that Defendants intend to induce their customers to infringe the '427 patent.

28. When using Defendants' chemical products as instructed by Defendants, Defendants' customers directly infringe the '427 patent by using at least PureMax in ways that embody the invention of the '427 patent.

29. Defendants had notice of the '427 patent and its infringement thereof.

30. Defendants' infringement of the '427 patent is willful and deliberate.

31. Plaintiffs have been damaged by Defendants' infringement of the '427 patent in an amount to be proven at trial and will continue to be damaged in the future unless Defendants are preliminarily and permanently enjoined from infringing said patent.

COUNT III

Federal Trademark Infringement and Unfair Competition

32. Ecolab incorporates the allegations of the foregoing paragraphs of this Complaint.

33. Ecolab is the owner of federal trademark Registration No. 2437086 for the mark PURATE® for chemicals for use in the production of chlorine dioxide. The registration was issued in compliance with law to Ecolab's predecessor, Eka Chemicala Inc. and was subsequently assigned to Ecolab. The mark is incontestable under 15 U.S.C. § 1065. The registration is attached as Exhibit C.

34. Since at least about 1999, Ecolab (through its predecessor) has been commercially using the PURATE® mark in connection with its chlorine dioxide business in interstate commerce. Since about 1999, Ecolab (through its predecessor) has given notice of its registered rights in its PURATE® mark by using the ® symbol in connection with its PURATE® mark.

35. Ecolab is an industry-recognized leader in the sale of chemicals and equipment for the production of chlorine dioxide under its PURATE® mark.

36. Ecolab has expended a substantial amount of money and effort in advertising and promoting the PURATE® mark. Ecolab's substantial promotional, advertising, publicity, and public relations activities further promote the recognition and goodwill associated with its PURATE® mark.

37. Defendants, PureLine, began using the PURATE® mark under a supply agreement that allowed Defendants to purchase and resell PURATE®.

38. PureLine was required to cease use of the PURATE® mark on or about December 31, 2015, with the expiration of the supply agreement.

39. However, PureLine did not stop use of Ecolab's PURATE® mark after it stopped purchasing PURATE® from Ecolab. To the contrary, PureLine continued to use Ecolab's PURATE® mark to advertise, promote and sell PureLine's competing chlorine dioxide chemistry precursor PureMax. PureLine did not have Ecolab's permission to use PURATE® in connection with PureLine's own chemistry products.

40. Defendants have used a mark identical to and/or confusingly similar to Plaintiff's federally-registered PURATE® mark in connection with the advertising, promotion, and/or sale of goods/services identical to the goods/services of Ecolab without the consent of Ecolab in a manner which is likely to cause confusion, to cause mistake, or to deceive as to source or origin among purchasers and/or users of those goods/services.

41. Defendants' actions constitute trademark infringement under 15 U.S.C. § 1114 and unfair competition under § 1125(a). Defendants' actions were taken in willful, deliberate, and/or intentional disregard of Plaintiff's rights. The case is exceptional under the Lanham Act.

42. Ecolab has been damaged by the actions of Defendants in an amount which will be proved at trial. If the acts of Defendants are allowed to continue, Ecolab will continue to suffer irreparable injury for which it has no adequate remedy at law.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs pray for the following relief:

- a. A judgment that Defendants have infringed United States Patent No. 5,895,638;
- b. A judgment that Defendants have infringed United States Patent No. 6,790,427;
- c. An injunction enjoining and restraining Defendants, their officers, directors, agents, servants, employees, customers, attorneys and all others acting under or through it, directly or indirectly, from infringing, or contributing to or inducing the infringement of, United States Patent No. 6,790,427;
- d. A judgment and order requiring Defendants to pay damages under 35 U.S.C. § 284, including treble damages for willful infringement as provided by 35 U.S.C. § 284, with interest;
- e. A judgment and order directing Defendants to pay the costs of this action (including all disbursements) and attorney fees as provided by 35 U.S.C. § 285, with interest;
- f. Preliminarily and permanently enjoining and restraining Defendants, their directors, officers, agents, servants, employees, subsidiaries, affiliates, and all persons in active concert or participation with, through, or under Defendants, at first during the pendency of this action and thereafter perpetually:

1. from committing any acts of unfair competition and from implying a false designation of origin or a false description or representation with respect to Ecolab's PURATE® mark;
2. from committing any acts of unfair competition by passing off or inducing or enabling others to sell or pass off goods/services which are not Ecolab's goods/services as those of Ecolab's;
3. from using in any manner packaging, labels, signs, literature, display cards, or other packaging, advertising, or promotional materials, or other materials related to Defendants' goods/services, bearing the words PURATE® and any other mark, word, or name confusingly similar to Ecolab's mark;
4. from making any statements on promotional materials or advertising for Defendants' goods/services which are false or misleading as to source or origin; and
5. from committing any acts of deceptive or unlawful trade practices calculated to cause members of the trade or purchasing public to believe that Defendants' goods/services are the goods/services of Ecolab or sponsored by or associated with, or related to, or connected with, or in some way endorsed or promoted by Ecolab under the supervision or control of Ecolab.

g. An order requiring that Defendants deliver up to Ecolab any and all containers, signs, packaging materials, printing plates, and advertising or promotional materials and any materials used in the preparation thereof, which in any way unlawfully use or make reference to PURATE® in connection with Defendants' goods/services.

h. An order requiring that Defendants, within thirty (30) days after service of notice in entry of judgment or issuance of an injunction pursuant thereto, file with the Court and serve upon Plaintiffs' counsel a written report under oath setting forth details of the manner in which Defendants have complied with the Court's order pursuant to paragraphs f and g above.

i. An order requiring Defendants to account and pay over to Plaintiffs all damages sustained by Plaintiffs, Defendants' profits, attorneys' fees and costs, and ordering that the amount of damages awarded to Plaintiffs be increased three times the amount thereof; and

j. Such other and further relief as this Court may deem just and equitable.

DEMAND FOR A JURY TRIAL

Ecolab hereby demands a trial by jury of all issues so triable.

Respectfully Submitted,

Date: July 3, 2019

s/Anthony R. Zeuli

Anthony R. Zeuli (IL #6231415)

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