IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

SOLENIS TECHNOLOGIES, L.P.; **SOLENIS SWITZERLAND GMBH**; and **SOLENIS LLC**; Plaintiffs, v. **AXCHEM USA, INC.** and **SNF S.A.**, Defendants.	CIVIL ACTION NO. _____ **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs, Solenis Technologies, L.P.; Solenis Switzerland GmbH; and Solenis LLC (collectively, "Solenis"), hereby file their complaint for patent infringement seeking damages and injunctive relief against Axchem USA, Inc. ("Axchem") and SNF S.A. ("SNF"), by alleging as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 1, *et seq*. Axchem and SNF are believed to directly infringe, induce the infringement of, and contribute to the infringement of, U.S. Patent Nos. 8,703,847 (the "'847 Patent"), 8,222,343 (the "'343 Patent"), and 7,875,676 (the "'676 Patent") (collectively, the "Asserted Patents"). Axchem's and SNF's

infringements derive from their commercial activities relating to chemicals used in the production of paper and paperboard products.

THE PARTIES

2. Plaintiff Solenis Technologies, L.P., the owner of the Asserted Patents, is a Delaware limited partnership with a principal place of business at 3 Beaver Valley Road, Suite 500, Wilmington, Delaware 19803.

3. Plaintiff Solenis Switzerland GmbH, which received an exclusive license of the Asserted Patents from Solenis Technologies, L.P., is a Swiss corporation having a principal place of business at Mühlentalstrasse 38, 8200 Schaffhausen, Switzerland.

4. Plaintiff Solenis LLC, which received an exclusive license of the Asserted Patents from Solenis Switzerland GmbH, is a Delaware limited liability company with a principal place of business at 2475 Pinnacle Drive, Wilmington, Delaware 19803.

5. Defendant Axchem is a Michigan corporation having its principal place of business at 810-A Franklin Court, Marietta, Georgia 30067.

6. Defendant SNF is a French limited liability company having its principal place of business at ZAC du Milieux, 42160 Andrézieux-Bouthéon, France.

JURISDICTION AND VENUE

7. This is an action for patent infringement under the United States Patent Laws, 35 U.S.C. § 1, *et seq*. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

8. This Court has personal jurisdiction over Axchem because Axchem maintains its U.S. headquarters at 810-A Franklin Court, Marietta, Georgia 30067 and operates a chemical production site in Riceboro, Georgia. Axchem is registered to do business in Georgia and conducts significant business within the state, including at its Riceboro plant and its Marietta headquarters. Therefore, Axchem is a resident of Georgia for purposes of personal jurisdiction and is subject to the general jurisdiction of Georgia. Moreover, Axchem's Riceboro production site and Marietta headquarters establish minimum contacts with Georgia, thereby providing Georgia with specific personal jurisdiction over Axchem. This Court, therefore, has personal jurisdiction over Axchem.

9. This Court has personal jurisdiction over SNF because, on information and belief, SNF maintains its United States headquarters at a major chemical plant located at 1 Chemical Plant Road, Riceboro, Georgia 31323. SNF conducts significant business within the state, including at its Riceboro headquarters. SNF is therefore a resident of Georgia for purposes of personal jurisdiction and is subject to the general jurisdiction of Georgia. Moreover, SNF's Riceboro site establishes

minimum contacts with Georgia, and Georgia has specific personal jurisdiction over SNF. This Court, therefore, has personal jurisdiction over SNF.

10. Venue is proper under 28 U.S.C. § 1400(b) because Axchem has a regular and established place of business in this district and, on information and belief, has committed at least one act of infringement in this district. On information and belief, Axchem has offered for sale or sold technology for generating glyoxalated polyacrylamide ("GPAM") on-site, including BONDSTAR® Onsite GPAM, as well as the GPAM generated on-site from its Marietta, Georgia headquarters. SNF, as an alien defendant, is subject to suit in any district within a state which has personal jurisdiction over it.

FACTUAL BACKGROUND

11. On April 22, 2014, the United States Patent and Trademark Office duly issued the '847 Patent, titled "Glyoxalation of Vinylamide Polymer." The subject matter claimed in the '847 Patent was invented by Matthew D. Wright. A copy of the '847 Patent is attached as **Exhibit A**.

12. On July 17, 2012, the United States Patent and Trademark Office duly issued the '343 Patent, titled "Glyoxalation of Vinylamide Polymer." The subject matter claimed in the '343 Patent was invented by Matthew D. Wright. A copy of the '343 Patent is attached as **Exhibit B**.

13. On January 25, 2011, the United States Patent and Trademark Office duly issued the ’676 Patent, titled “Glyoxalation of Vinylamide Polymer.” The subject matter claimed in the ’676 Patent was invented by Matthew D. Wright. A copy of the ’676 Patent is attached as **Exhibit C**.

14. Solenis Technologies, L.P. is the owner by assignment of title of the Asserted Patents. Solenis Switzerland GmbH received an exclusive license to the Asserted Patents from Solenis Technologies, L.P. Solenis LLC, in turn, received an exclusive license to the Asserted Patents from Solenis Switzerland GmbH. Together, all rights, title, and interests in the Asserted Patents are possessed by Solenis Technologies, L.P.; Solenis Switzerland GmbH; and Solenis LLC.

15. The ’847 Patent is directed to, *inter alia*, methods for preparing cellulose-reactive polyvinylamide adducts. The ’847 Patent is also directed to, *inter alia*, glyoxalated-polyvinylamide thermosets. The inventions of the ’847 Patent may be used to provide improved paper and paperboard strengthening agents.

16. The ’343 Patent is directed to, *inter alia,* methods for increasing the wet or dry strength of paper or paperboard by adding a cellulose reactive functionalized polyvinylamide adduct to an aqueous slurry of cellulose fibers or spraying a cellulose reactive functionalized polyvinylamide adduct onto a wet web, paper, or paperboard. The ’343 Patent is also directed to paper or paperboard having a cellulose reactive functionalized polyvinylamide adduct.

17. The ’676 Patent is directed to, *inter alia,* methods for preparing cellulose-reactive functionalized polyvinylamide adducts. The inventions of the ’676 Patent may be used to provide improved paper and paperboard strengthening agents.

18. Solenis is in the business of commercializing and exploiting technology for generating GPAM on-site at paper-production facilities, including under the Hercobond® brand. The innovative Hercobond® technologies enable paper producers to improve the strength of their paper products.

19. Upon information and belief, Axchem and SNF are in the business of making, marketing, and selling GPAM products and services for generating GPAM, including under the AXSTRENGTH® brand. Upon information and belief, Axchem and SNF offer the technology, equipment, reagents, and services necessary to generate GPAM on-site and offer such products and services under the BONDSTAR® brand. For example, Axchem advertises “BONDSTAR® Onsite GPAM” under its AXSTRENGTH® line of products:

20. On information and belief, Axchem and SNF license the technology, know-how, and branding for BONDSTAR® Onsite GPAM from Applied Chemicals International Group ("ACAT") for use within the United States. ACAT or an affiliated entity owns the BONDSTAR® trademark that Axchem advertises.

21. SNF advertises that it maintains a paper laboratory to serve North American customers out of its Riceboro, Georgia plant. SNF claims that its Riceboro paper laboratory supports research and development efforts and provides technical support to customers. On information and belief, SNF's Riceboro paper laboratory provides research and development support and technical support to both Axchem and SNF, each of whom advertises the Riceboro plant as one of its U.S. locations.

22. On information and belief, Axchem and SNF tested and vetted technology for generating GPAM on-site, including the BONDSTAR® Onsite GPAM technology, at the Riceboro plant. On information and belief, Axchem and SNF provide technical support to their customers for BONDSTAR® Onsite GPAM

from the Riceboro plant. On information and belief, Axchem and SNF have offered for sale, sold, or used technology for generating GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, at customer locations including a Biron, Wisconsin paper mill operated by ND Paper. On information and belief, GPAM generated on-site, such as by using the BONDSTAR® Onsite GPAM technology, has been made in Riceboro, GA and Biron, WI. On information and belief, paper or paperboard using GPAM generated using the BONDSTAR® Onsite GPAM technology has been made in Biron, WI.

23. On information and belief, Axchem and SNF employees operate the equipment used to generate GPAM on-site at its customers' facilities, including the Biron, WI mill. Alternatively, Axchem and SNF employees direct or control third parties to operate equipment used to generate GPAM on-site. In either case, Axchem and SNF directly infringe the Asserted Patents. To the extent third parties are not directed or controlled by Axchem or SNF, Axchem and SNF encourage the generation of GPAM on-site.

24. Upon information and belief, the technology that Axchem and SNF use and have used to generate GPAM on-site, including the BONDSTAR® Onsite GPAM technology, and the products made using such technology infringe one or more claims of the '847 Patent, the '343 Patent, and the '676 Patent.

25. To the extent that Axchem and SNF are not operating the equipment for generating GPAM on-site at their customers' facilities or directing or controlling the operation of the equipment for generating GPAM on-site, thereby directly infringing the Asserted Patents, Axchem and SNF provided the technology, equipment, reagents, and services necessary to enable the BONDSTAR® Onsite GPAM infringements at Riceboro, GA and Biron, WI, thereby indirectly infringing the Asserted Patents.

26. Axchem and SNF have been made aware that the technologies they utilize for generating GPAM on-site infringe one or more of the Asserted Patents. For example, on January 18, 2024, a Solenis representative sent a letter to Axchem and SNF listing the Asserted Patents. The letter stated Solenis's understanding that SNF and Axchem planned to utilize the BONDSTAR® Onsite GPAM technology in ND Paper's Biron, WI paper mill and requested assurances that any planned use of Solenis's intellectual property was halted. This letter is attached as **Exhibit D**.

27. An attorney representing Axchem and SNF responded on February 6, 2024, confirming awareness of prior correspondence sent on December 11, 2017 and June 19, 2019 that also provided notice of the Asserted Patents. The responsive February 6, 2024 letter is attached as **Exhibit E**.

28. Accordingly, Axchem and SNF have known of the Asserted Patents since at least December 11, 2017 and that their planned implementations of on-site-

generated GPAM would infringe one or more of the Asserted Patents. On information and belief, after receiving the 2017 and 2019 letters, Axchem and SNF abandoned their efforts to commercialize technology for generating GPAM on-site. Axchem's and SNF's current infringements, done with notice that the BONDSTAR® Onsite GPAM technology infringes the Asserted Patents, are, therefore, willful.

29. On February 22, 2024, counsel for Solenis wrote to counsel for SNF and Axchem, listing the three Asserted Patents and requesting details of Axchem's and SNF's processes for generating GPAM on-site. The letter noted that certain of the patents' claims recite processes and that it was unlikely that Axchem and SNF could generate cellulose reactive adducts (such as GPAM) on-site without infringing. Solenis requested that Axchem and SNF provide technical details of its processes in a confidentiality agreement so that Solenis could independently confirm whether or not the Axchem and SNF processes were covered by the Asserted Patents.

30. The February 22, 2024 letter also provided confirmation that Solenis had a contract with ND Paper relating to the supply of GPAM and warned Axchem and SNF that interference with that contract may be actionable. The February 22, 2024 letter is attached as **Exhibit F**.

31. Axchem and SNF have not responded to the February 22, 2024 letter.

32. Solenis is unaware of any analytical method of analyzing GPAM that would conclusively determine the process that was used for its generation. Axchem and SNF have, to date, kept those details hidden.

33. In light of Axchem and SNF refusing to provide further information concerning their BONDSTAR® Onsite GPAM technology, and considering the characteristics of a sample of GPAM that was provided to Solenis and, on information and belief, was generated using the BONDSTAR® Onsite GPAM technology, Solenis believes it likely that the BONDSTAR® Onsite GPAM technology (as well as GPAM produced using such technology and paper and paperboard incorporating GPAM produced using such technology) infringes one or more claims of the Asserted Patents.

34. Solenis, therefore, resorts to the judicial process and the aid of discovery to obtain, under appropriate judicial safeguards, such information as is required to confirm its belief and to present to the Court regarding Axchem's and SNF's infringement of the Asserted Patents.

COUNT ONE:
DIRECT INFRINGEMENT OF THE '847 PATENT

35. Solenis realleges and incorporates by reference paragraphs 7-34.

36. On information and belief, Axchem and SNF have infringed, and continue to directly infringe, at least claims 1 and 8 of the '847 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents,

or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, in the United States.

37. Claim 1 of the ’847 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising
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> reacting a substantially aqueous reaction mixture comprising a vinylamide polymer and a cellulose reactive agent to form the adduct,
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> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and the concentration of the vinylamide polymer is less than about 4 weight percent of the reaction mixture at any stage during the adduct reaction, and
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> the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

38. Claim 8 of the ’847 Patent recites:

> 8. A substantially aqueous glyoxalated-polyvinylamide thermosetting polymer composition, said composition comprising
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> a reaction product of a vinylamide polymer and glyoxal, wherein said composition contains substantially no organic liquid,
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> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and has a concentration ranging from about 0.1 to less than 4 wt. % based on the composition, and
>
> the reaction product is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD

viscometer at a speed of 60 rpm and a temperature of 25° C.

39. On information and belief, Axchem and SNF have offered for sale, sold, established and continue to operate equipment for generating GPAM on-site. On information and belief, Axchem and SNF have offered for sale or sold the GPAM generated on-site. On information and belief, Axchem and SNF employees or agents provide reagents and control the equipment for on-site GPAM generation, or direct or control third parties who control the equipment for on-site GPAM generation. On information and belief, the process that this equipment performs infringes at least claim 1 of the '847 Patent. On information and belief, the GPAM generated on-site, including from the BONDSTAR® Onsite GPAM technology, infringes at least claim 8 of the '847 Patent.

40. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, that sample confirms the infringement of at least claim 8 of the '847 Patent, and the act of preparing such GPAM infringes at least claim 1 of the '847 Patent.

41. On information and belief, Axchem and SNF have tested the BONDSTAR® Onsite GPAM technology at the Riceboro, Georgia plant. Such testing has resulted in infringement of at least claims 1 and 8 of the '847 Patent.

42. Axchem's and SNF's infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the '847 Patent and the relevance of the '847 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

43. Axchem's and SNF's infringement of the '847 Patent will continue unless enjoined by this Court.

44. Axchem's and SNF's infringement of the '847 patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem's and SNF's infringement of the '847 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the '847 Patent.

45. No amount of damages can fully compensate Solenis.

46. The public interest favors an injunction to protect Solenis's investment-based risk resulting in the commercialization of the technology claimed in the '847 Patent and to enforce the Patent Act's statutory right to exclude others from practicing Solenis's patented inventions. Accordingly, the circumstances of Axchem's and SNF's infringement warrant injunctive relief.

47. Axchem's and SNF's infringement of the '847 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT TWO:
INDUCED INFRINGEMENT OF THE '847 PATENT

48. Solenis realleges and incorporates by reference paragraphs 7-34.

49. On information and belief, Axchem and SNF have induced and continue to induce the infringement of at least claims 1 and 8 of the '847 Patent, in violation of 35 U.S.C. § 271(b), by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, to third-party sites in the United States (including at the Biron, Wisconsin ND Paper mill) and actively and knowingly encouraging those third parties to use the technology, equipment, reagents, or services to generate GPAM according to one or more claims of the '847 Patent and to use such GPAM in processes for making paper and paperboard products. Axchem and SNF have encouraged such acts knowing, or being willfully blind to the fact, that they constituted direct infringement of at least claims 1 and 8 of the '847 Patent.

50. Claim 1 of the '847 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising

> reacting a substantially aqueous reaction mixture comprising a vinylamide polymer and a cellulose reactive agent to form the adduct,
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> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and the concentration of the vinylamide polymer is less than about 4 weight percent of the reaction mixture at any stage during the adduct reaction, and
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> the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

51. Claim 8 of the ’847 Patent recites:

> 8. A substantially aqueous glyoxalated-polyvinylamide thermosetting polymer composition, said composition comprising
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> a reaction product of a vinylamide polymer and glyoxal, wherein said composition contains substantially no organic liquid,
>
> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and has a concentration ranging from about 0.1 to less than 4 wt. % based on the composition, and
>
> the reaction product is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

52. On information and belief, the generation of GPAM on-site, including by using the BONDSTAR® Onsite GPAM technology, directly infringes at least claims 1 and 8 of the ’847 Patent.

53. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, that sample confirms the infringement of at least claim 8 of the ’847 Patent, and the act of preparing such GPAM infringes at least claim 1 of the ’847 Patent.

54. Axchem’s and SNF’s encouragement to third parties to generate GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, or to use the GPAM generated on-site, induces the infringement of at least claims 1 and 8 of the ’847 Patent.

55. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’847 Patent and the relevance of the ’847 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

56. Axchem’s and SNF’s infringement of the ’847 Patent will continue unless enjoined by this Court.

57. Axchem’s and SNF’s infringement of the ’847 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’847 Patent has caused and will continue to cause irreparable harm to Solenis

incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’847 Patent.

58. No amount of damages can fully compensate Solenis.

59. The public interest favors an injunction to protect Solenis’s investment-based risk resulting in the commercialization of the technology claimed in the ’847 Patent and to enforce the Patent Act’s statutory right to exclude others from practicing Solenis’s patented invention. Accordingly, the circumstances of Axchem’s and SNF’s infringement warrant injunctive relief.

60. Axchem’s and SNF’s infringement of the ’847 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys’ fees and costs under 35 U.S.C. § 285.

COUNT THREE:
CONTRIBUTORY INFRINGEMENT OF THE ’847 PATENT

61. Solenis realleges and incorporates by reference paragraphs 7-34.

62. On information and belief, Axchem and SNF have contributed, and continue to contribute, to the infringement of at least at least claims 1 and 8 of the ’847 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, at one or more third-party facilities in the United States (including at the Biron, Wisconsin ND Paper mill) and supplying that GPAM for use in making paper and paperboard products. Axchem

and SNF have known, or were willfully blind to the fact, that the generation of GPAM on-site, such as by incorporating the BONDSTAR® Onsite GPAM technology, and use of such GPAM in paper or paperboard products constituted direct infringement of at least claims 1 and 8 of the '847 Patent.

63. Claim 1 of the '847 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising
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> reacting a substantially aqueous reaction mixture comprising a vinylamide polymer and a cellulose reactive agent to form the adduct,
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> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and the concentration of the vinylamide polymer is less than about 4 weight percent of the reaction mixture at any stage during the adduct reaction, and
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> the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

64. Claim 8 of the '847 Patent recites:

> 8. A substantially aqueous glyoxalated-polyvinylamide thermosetting polymer composition, said composition comprising
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> a reaction product of a vinylamide polymer and glyoxal, wherein said composition contains substantially no organic liquid,
>
> wherein the vinylamide polymer has an average molecular weight ranging from 70,000 to 500,000 Daltons and has a

> concentration ranging from about 0.1 to less than 4 wt. % based on the composition, and
>
> the reaction product is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

65. On information and belief, GPAM generated on-site, such as from the BONDSTAR® Onsite GPAM technology, and the equipment used to generate GPAM on-site, are non-staple materials offered for sale or sold by Axchem and SNF to third parties for use in making paper and paperboard products knowing the same to be especially made or especially adapted for use in an infringement of the '847 Patent.

66. On information and belief, the generation of GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, directly infringes at least claims 1 and 8 of the '847 Patent.

67. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, that sample confirms the infringement of at least claim 8 of the '847 Patent, and the act of preparing such GPAM infringes at least claim 1 of the '847 Patent.

68. Axchem's and SNF's sale of technology, equipment, reagents, and services for generating GPAM on-site, including by using the BONDSTAR® Onsite

GPAM technology, contributes to the infringement of at least claims 1 and 8 of the ’847 Patent.

69. The generation of GPAM on-site is a material part of the invention of at least claims 1 and 8 of the ’847 Patent. GPAM generated on-site is not a staple article or commodity of commerce suitable for substantial noninfringing use.

70. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’847 Patent and the relevance of the ’847 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

71. Axchem’s and SNF’s infringement of the ’847 Patent will continue unless enjoined by this Court.

72. Axchem’s and SNF’s infringement of the ’847 patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’847 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’847 Patent.

73. No amount of damages can fully compensate Solenis.

74. The public interest favors an injunction to protect Solenis’s investment-based risk resulting in the commercialization of the technology claimed in the ’847

Patent and to enforce the Patent Act's statutory right to exclude others from practicing Solenis's patented inventions. Accordingly, the circumstances of Axchem's and SNF's infringement warrant injunctive relief.

75. Axchem's and SNF's infringement of the '847 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT FOUR:
DIRECT INFRINGEMENT OF THE '343 PATENT

76. Solenis realleges and incorporates by reference paragraphs 7-34.

77. On information and belief, Axchem and SNF have directly infringed, and continue to directly infringe, at least claim 1 of the '343 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, in the United States.

78. Claim 1 of the '343 Patent recites:

> 1. A paper or board comprising a cellulose reactive functionalized polyvinylamide adduct prepared by a process comprising
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> reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,
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> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which

> the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation;
>
> wherein the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.;
>
> wherein the reaction is run in a continuous mode or in a batch mode.

79. On information and belief, Axchem and SNF have offered for sale, sold, established and continue to operate equipment for generating GPAM on-site. On information and belief, Axchem and SNF have offered for sale or sold the GPAM generated on-site. On information and belief, Axchem and SNF employees or agents provide reagents and control the equipment for on-site GPAM generation, or direct or control third parties who control the equipment for on-site GPAM generation. On information and belief, the process that this equipment performs generates products that infringe at least claim 1 of the ’343 Patent.

80. On information and belief, Axchem and SNF have tested the BONDSTAR® Onsite GPAM technology at the Riceboro, Georgia plant. Such testing has resulted in infringements of at least claim 1 of the ’343 Patent.

81. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On

information and belief, that sample confirms the infringement of at least claim 1 of the ’343 Patent.

82. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’343 Patent and the relevance of the ’343 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

83. Axchem’s and SNF’s infringement of the ’343 Patent will continue unless enjoined by this Court.

84. Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’343 Patent.

85. No amount of damages can fully compensate Solenis.

86. The public interest favors an injunction to protect Solenis’ investment-based risk resulting in the commercialization of the technology claimed in the ’343 Patent and to enforce the Patent Act’s statutory right to exclude others from practicing Solenis’s patented invention. Accordingly, the circumstances of Axchem’s and SNF’s infringement warrant injunctive relief.

87. Axchem's and SNF's infringement of the '343 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT FIVE:
INDUCED INFRINGEMENT OF THE '343 PATENT

88. Solenis realleges and incorporates by reference paragraphs 7-34.

89. On information and belief, Axchem and SNF have induced and continue to induce the infringement of at least claims 1 and 12 of the '343 Patent, in violation of 35 U.S.C. § 271(b), by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, to third-party sites in the United States (including at the Biron, Wisconsin ND Paper mill) and actively and knowingly encouraging those third parties to use the technology, equipment, reagents, or services to generate GPAM according to one or more claims of the '343 Patent and to use such GPAM in processes for making paper and paperboard products. Axchem and SNF have encouraged such acts knowing, or being willfully blind to the fact, that they constituted direct infringement of at least claims 1 and 12 of the '343 Patent.

90. Claim 1 of the '343 Patent recites:

> 1. A paper or board comprising a cellulose reactive functionalized polyvinylamide adduct prepared by a process comprising

reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,

wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation;

wherein the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.;

wherein the reaction is run in a continuous mode or in a batch mode.

91. Claim 12 of the ’343 Patent recites:

12. A method for increasing the wet or dry strength of paper or board comprising the steps:

a) providing an aqueous slurry of cellulosic fibers;

adding a cellulose reactive functionalized polyvinylamide adduct to the aqueous slurry of cellulosic fibers; or

b) spraying, coating or applying a cellulose reactive functionalized polyvinylamide adduct onto a wet web, paper or board,

wherein the adduct is prepared by a process comprising reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,

> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation;
>
> wherein the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.;
>
> wherein the reaction is run in a continuous mode or in a batch mode.

92. On information and belief, the generation of GPAM on-site, including by using the BONDSTAR® Onsite GPAM technology, and incorporation of such GPAM into paper or paperboard directly infringes at least claims 1 and 12 of the ’343 Patent.

93. Axchem’s and SNF’s encouragement to third parties to generate GPAM on-site, including by using the BONDSTAR® Onsite GPAM technology, or to use GPAM generated on-site, induces the infringement of at least claims 1 and 12 of the ’343 Patent.

94. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, that sample confirms the infringement of at least claim 1 of

the ’343 Patent, and the incorporation of such GPAM into paper or paperboard infringes at least claim 12 of the ’343 Patent.

95. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’343 Patent and the relevance of the ’343 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

96. Axchem’s and SNF’s infringement of the ’343 Patent will continue unless enjoined by this Court.

97. Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’343 Patent.

98. No amount of damages can fully compensate Solenis.

99. The public interest favors an injunction to protect Solenis’s investment-based risk resulting in the commercialization of the technology claimed in the ’343 Patent and to enforce the Patent Act’s statutory right to exclude others from practicing Solenis’s patented invention. Accordingly, the circumstances of Axchem’s and SNF’s infringement warrant injunctive relief.

100. Axchem's and SNF's infringement of the '343 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT SIX:
CONTRIBUTORY INFRINGEMENT OF THE '343 PATENT

101. Solenis realleges and incorporates by reference paragraphs 7-34.

102. On information and belief, Axchem and SNF have contributed, and continue to contribute, to the infringement of at least claims 1 and 12 of the '343 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, at one or more third-party facilities in the United States (including at the Biron, Wisconsin ND Paper mill) and supplying that GPAM for use in making paper and paperboard products. Axchem and SNF have known, or were willfully blind to the fact, that the generation of GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, and use of such GPAM in paper or paperboard products constituted direct infringement of at least claims 1 and 12 of the '343 Patent.

103. Claim 1 of the '343 Patent recites:

> 1. A paper or board comprising a cellulose reactive functionalized polyvinylamide adduct prepared by a process comprising

reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,

wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation;

wherein the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.;

wherein the reaction is run in a continuous mode or in a batch mode.

104. Claim 12 of the ’343 Patent recites:

12. A method for increasing the wet or dry strength of paper or board comprising the steps:

a) providing an aqueous slurry of cellulosic fibers;

adding a cellulose reactive functionalized polyvinylamide adduct to the aqueous slurry of cellulosic fibers; or

b) spraying, coating or applying a cellulose reactive functionalized polyvinylamide adduct onto a wet web, paper or board,

wherein the adduct is prepared by a process comprising reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,

> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation;
>
> wherein the adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.;
>
> wherein the reaction is run in a continuous mode or in a batch mode.

105. On information and belief, GPAM generated on-site, including from the BONDSTAR® Onsite GPAM technology, and the equipment used to generate GPAM on-site, are non-staple materials offered for sale or sold by Axchem and SNF to third parties for use in making paper and paperboard products knowing the same to be especially made or especially adapted for use in an infringement of the ’343 Patent.

106. On information and belief, the production of paper and paperboard including the GPAM generated on-site, such as by using the BONDSTAR® Onsite GPAM technology, directly infringes at least claims 1 and 12 of the ’343 Patent.

107. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, that sample confirms the infringement of at least claim 1 of

the ’343 Patent, and the incorporation of such GPAM into paper or paperboard infringes at least claim 12 of the ’343 Patent.

108. Axchem’s and SNF’s sale of technology, equipment, reagents, and services for generating GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, contributes to the infringement of at least claims 1 and 12 of the ’343 Patent.

109. The generation of GPAM on-site is a material part of the invention of at least claims 1 and 12 of the ’343 Patent. GPAM generated on-site is not a staple article or commodity of commerce suitable for substantial noninfringing use.

110. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’343 Patent and the relevance of the ’343 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

111. Axchem’s and SNF’s infringement of the ’343 Patent will continue unless enjoined by this Court.

112. Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’343 Patent has caused and will continue to cause irreparable harm to Solenis

incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’343 Patent.

113. No amount of damages can fully compensate Solenis.

114. The public interest favors an injunction to protect Solenis’ investment-based risk resulting in the commercialization of the technology claimed in the ’343 Patent and to enforce the Patent Act’s statutory right to exclude others from practicing Solenis’s patented invention. Accordingly, the circumstances of Axchem’s and SNF’s infringement warrant injunctive relief.

115. Axchem’s and SNF’s infringement of the ’343 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys’ fees and costs under 35 U.S.C. § 285.

COUNT SEVEN:
DIRECT INFRINGEMENT OF THE ’676 PATENT

116. Solenis realleges and incorporates by reference paragraphs 7-34.

117. On information and belief, Axchem and SNF have directly infringed, and continue to directly infringe, at least claim 1 of the ’676 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, in the United States.

118. Claim 1 of the ’676 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising
>
> reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,
>
> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which Critical Concentration the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which Critical Concentration, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation, wherein the cellulose reactive functionalized polyvinylamide adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

119. On information and belief, Axchem and SNF have offered for sale, sold, established and continue to operate equipment for generating GPAM on-site. On information and belief, Axchem and SNF have offered for sale or sold the GPAM generated on-site. On information and belief, Axchem and SNF employees or agents provide reagents and control the equipment for on-site GPAM generation, or direct or control third parties who control the equipment for on-site GPAM generation. On information and belief, the process that this equipment performs infringes at least claim 1 of the ’676 Patent.

120. On information and belief, Axchem and SNF have tested the BONDSTAR® Onsite GPAM technology at the Riceboro, Georgia plant. Such testing has resulted in infringements of at least claim 1 of the ’676 Patent.

121. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, the act of preparing such GPAM infringes at least claim 1 of the ’676 Patent.

122. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’676 Patent and the relevance of the ’676 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

123. Axchem’s and SNF’s infringement of the ’676 Patent will continue unless enjoined by this Court.

124. Axchem’s and SNF’s infringement of the ’676 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the ’676 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the ’676 Patent.

125. No amount of damages can fully compensate Solenis.

126. The public interest favors an injunction to protect Solenis' investment-based risk resulting in the commercialization of the technology claimed in the '676 Patent and to enforce the Patent Act's statutory right to exclude others from practicing Solenis's patented invention. Accordingly, the circumstances of Axchem's and SNF's infringement warrant injunctive relief.

127. Axchem's and SNF's infringement of the '676 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT EIGHT:
INDUCED INFRINGEMENT OF THE '676 PATENT

128. Solenis realleges and incorporates by reference paragraphs 7-34.

129. On information and belief, Axchem and SNF have induced and continue to induce the infringement of at least claim 1 of the '676 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, to third-party sites in the United States (including at the Biron, Wisconsin ND Paper mill) and actively and knowingly encouraging those third parties to use the technology, equipment, reagents, or services to generate GPAM according to one or more claims of the '676 Patent when making paper and paperboard products. Axchem and SNF have encouraged such

acts knowing, or being willfully blind to the fact, that they constituted direct infringement of at least claim 1 of the ’676 Patent.

130. Claim 1 of the ’676 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising
>
> reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,
>
> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which Critical Concentration the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which Critical Concentration, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation, wherein the cellulose reactive functionalized polyvinylamide adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

131. On information and belief, the generation of GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, directly infringes at least claim 1 of the ’676 Patent.

132. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, the act of preparing such GPAM infringes at least claim 1 of the ’676 Patent.

133. Axchem's and SNF's encouragement to third parties to generate GPAM on-site, including by using the BONDSTAR® Onsite GPAM technology, or to use GPAM generated on-site, induces the infringement of at least claim 1 of the '676 Patent.

134. Axchem's and SNF's infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the '676 Patent and the relevance of the '676 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

135. Axchem's and SNF's infringement of the '676 Patent will continue unless enjoined by this Court.

136. Axchem's and SNF's infringement of the '676 Patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem's and SNF's infringement of the '676 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the '676 Patent.

137. No amount of damages can fully compensate Solenis.

138. The public interest favors an injunction to protect Solenis's investment-based risk resulting in the commercialization of the technology claimed in the '676 Patent and to enforce the Patent Act's statutory right to exclude others from

practicing Solenis's patented invention. Accordingly, the circumstances of Axchem's and SNF's infringement warrant injunctive relief.

139. Axchem's and SNF's infringement of the '676 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

COUNT NINE:
CONTRIBUTORY INFRINGEMENT OF THE '676 PATENT

140. Solenis realleges and incorporates by reference paragraphs 7-34.

141. On information and belief, Axchem and SNF have contributed, and continue to contribute, to the infringement of at least at least claim 1 of the '676 Patent by providing, offering for sale, selling, establishing, or operating technology, equipment, reagents, or services for the generation of GPAM on-site, such as the BONDSTAR® Onsite GPAM technology, at one or more third-party facilities in the United States (including at the Biron, Wisconsin ND Paper mill) and supplying that GPAM for use in making paper and paperboard products. Axchem and SNF have known, or were willfully blind to the fact, that the generation of GPAM on-site, such as by incorporating the BONDSTAR® Onsite GPAM technology, and use of such GPAM in paper or paperboard products constituted direct infringement of at least claim 1 of the '676 Patent.

142. Claim 1 of the '676 Patent recites:

> 1. A method for preparing a cellulose reactive functionalized polyvinylamide adduct comprising
>
> reacting a substantially aqueous reaction mixture of a vinylamide polymer and a cellulose reactive agent to form the adduct,
>
> wherein the concentration of the vinylamide polymer is below, equal to or no more than 1% above a Critical Concentration and the Critical Concentration is defined as the concentration of the vinylamide polymer above which Critical Concentration the viscosity increases for the reaction mixture resulting from the forward progress of the adduct formation, and below which Critical Concentration, the viscosity decreases for the reaction mixture resulting from the forward progress of adduct formation, wherein the cellulose reactive functionalized polyvinylamide adduct is characterized by a viscosity of no more than 30 centipoise measured using a BROOKFIELD viscometer at a speed of 60 rpm and a temperature of 25° C.

143. On information and belief, GPAM generated on-site, such as from the BONDSTAR® Onsite GPAM technology, and the equipment used to generate GPAM on-site, are non-staple materials offered for sale or sold by Axchem and SNF to third parties for use in making paper and paperboard products knowing the same to be especially made or especially adapted for use in an infringement of the ’676 Patent.

144. On information and belief, the generation of GPAM on-site, such as by using the BONDSTAR® Onsite GPAM technology, directly infringes at least claim 1 of the ’676 Patent.

145. For example, Solenis was provided with a sample of GPAM produced, on information and belief, using the BONDSTAR® Onsite GPAM technology. On information and belief, the act of preparing such GPAM infringes at least claim 1 of the ’676 Patent.

146. Axchem’s and SNF’s sale of technology, equipment, reagents, and services for generating GPAM on-site, including by using the BONDSTAR® Onsite GPAM technology, contributes to the infringement of at least claim 1 of the ’676 Patent.

147. The generation of GPAM on-site is a material part of the invention of at least claim 1 of the ’676 Patent. GPAM generated on-site is not a staple article or commodity of commerce suitable for substantial noninfringing use.

148. Axchem’s and SNF’s infringement has been and continues to be willful and deliberate because Axchem and SNF began or resumed infringement after having received notice of both the ’676 Patent and the relevance of the ’676 Patent to the on-site generation of GPAM in 2017, 2019, and again in 2024.

149. Axchem’s and SNF’s infringement of the ’676 Patent will continue unless enjoined by this Court.

150. Axchem’s and SNF’s infringement of the ’676 patent has caused and will continue to cause damages to Solenis in an amount not yet determined for which Solenis is entitled to relief. Regardless, Axchem’s and SNF’s infringement of the

'676 Patent has caused and will continue to cause irreparable harm to Solenis incapable of being fully remedied by damages alone. Axchem and SNF should be enjoined from further infringement of the '676 Patent.

151. No amount of damages can fully compensate Solenis.

152. The public interest favors an injunction to protect Solenis's investment-based risk resulting in the commercialization of the technology claimed in the '676 Patent and to enforce the Patent Act's statutory right to exclude others from practicing Solenis's patented inventions. Accordingly, the circumstances of Axchem's and SNF's infringement warrant injunctive relief.

153. Axchem's and SNF's infringement of the '676 Patent is willful and deliberate, entitling Solenis to enhanced damages under 35 U.S.C. § 284 and to attorneys' fees and costs under 35 U.S.C. § 285.

DEMAND FOR JURY TRIAL

Solenis hereby demands a jury trial for all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Solenis respectfully requests that this Court enter judgment in its favor and against Axchem and SNF, and award Solenis the following relief:

A. Entry of judgment that Axchem and SNF have infringed one or more claims of each of the Asserted Patents, directly or indirectly;

B. Entry of judgment that Axchem's and SNF's infringements are and have been willful;

C. A permanent injunction that enjoins Axchem and SNF, and their officers, agents, servants, employees, attorneys, and those persons in active concert or participation with Axchem or SNF who receive actual notice of the order by personal service or otherwise, from any further sales or use of the infringing products, processes, or services and any other infringement of each of the Asserted Patents, whether direct or indirect;

D. An award of all damages adequate to compensate Solenis for Axchem's and SNF's infringement of the Asserted Patents, including damages pursuant to 35 U.S.C. § 284, such as an award of Solenis's lost profits and in no event less than a reasonable royalty for Axchem's and SNF's acts of infringement; all pre-judgment and post-judgment interest at the maximum rate permitted by law; and ongoing royalties in the absence of a permanent injunction;

E. Entry of judgment that this case is exceptional with respect to Axchem and SNF, an award of treble damages due to Axchem's and SNF's deliberate and willful infringement;

F. An award of costs and expenses in this action, including an award of Solenis's reasonable attorneys' fees and costs to the full extent allowed by law; and

G. Any other and further relief that the Court deems just, proper, and equitable under the circumstances.

Dated: April 2, 2024

Respectfully submitted,

/s/ Lisa N. Collins

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