IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CELANESE INTERNATIONAL CORPORATION; CELANESE (MALTA) COMPANY 2 LIMITED; & CELANESE SALES U.S. LTD., Plaintiff, v. ANHUI JINHE INDUSTRIAL CO., LTD.; JINHE USA LLC; UMC INGREDIENTS, LLC f/k/a JRS INTERNTIONAL LLC; PRINOVA US LLC; & AGRIDIENT, INC., Defendants.	C.A. No. 20-1775-LPS **JURY TRIAL DEMANDED**

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiffs Celanese International Corporation, Celanese (Malta) Company 2 Limited, and Celanese Sales U.S. Ltd. (collectively, "Celanese" or "Plaintiffs") bring this amended complaint for patent infringement against Defendants Anhui Jinhe Industrial Co., Ltd. ("Jinhe"), Jinhe USA LLC ("Jinhe USA"), UMC Ingredients, LLC, formerly known as JRS International LLC ("UMC LLC"), Prinova US LLC ("Prinova"), and Agridient, Inc. ("Agridient") (collectively "Defendants"). Celanese, on personal knowledge as to its own acts, and on information and belief as to all others based on investigation, alleges the following:

NATURE OF THE ACTION

1. This is a civil action for infringement of United States Patent Nos. 10,233,164 ("the '164 patent"), 10,590,096 ("the '096 patent"), 10,227,316 ("the '316 patent"), and 10,590,097 ("the '097 patent") (collectively, the "Asserted Patents") under the patent laws of the United States, 35 U.S.C. § 1, *et seq*.

THE PARTIES

2. Plaintiff Celanese International Corporation is a Delaware corporation with its principal place of business at 222 W. Las Colinas Blvd, Suite 900N, Irving, Texas 75039.

3. Plaintiff Celanese (Malta) Company 2 Limited is a limited company organized under the laws of Malta, having its registered office at 78, Mill street, Zone 5, Central Business District, Qormi, CBD 5090, Malta and registered with company registration number C97343.

4. Plaintiff Celanese Sales U.S. Ltd. is a limited partnership, organized and existing under the laws of Texas, having its principal place of business at 222 W. Las Colinas Blvd, Suite 900N, Irving, Texas 75039.

5. Defendant Jinhe is a Chinese corporation publicly traded under the "SZ002597" symbol with its principal place of business at 127 East Street, Lai'an County, Anhui 239200, People's Republic of China.

6. Defendant Jinhe USA is a Delaware corporation with its principal place of business at 111 West Jackson Blvd., Suite 1350, Chicago, Illinois 60604.

7. Defendant UMC LLC is a Delaware corporation with its principal place of business at 160 Chubb Avenue, Suite 206, Lyndhurst, New Jersey 07071.

8. Defendant Prinova is a Delaware corporation with its principal place of business at 6525 Muirfield Drive, Hanover Park, Illinois 60133.

9. Defendant Agridient is a Delaware corporation with its principal place of business at 28580 Orchard Lake Road, Suite 205, Farmington Hills, Michigan 48334.

JURISDICTION AND VENUE

10. The Court has subject matter jurisdiction over the matters pleaded herein under 28 U.S.C. §§ 1331 and 1338(a) and the patent laws of the United States, 35 U.S.C. § 1, *et seq*.

11. The Court has personal jurisdiction over Jinhe because, on information and belief, Jinhe has regularly and systematically transacted business in and with residents of the State of Delaware, directly and/or through intermediaries (including its subsidiary, Jinhe USA), and/or committed acts of infringement in the State of Delaware, as alleged more particularly below. Jinhe has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware and/or by knowing that the products would be shipped into the State of Delaware. Celanese's causes of action arise, at least in part, from Jinhe's contacts with and activities in the State of Delaware. Alternatively, upon information and belief, the Court has personal jurisdiction over Jinhe pursuant to Federal Rule of Civil Procedure 4(k)(2).

12. The Court has personal jurisdiction over Jinhe USA at least because Jinhe USA is organized and exists under the laws of the State of Delaware. On information and belief, Jinhe USA has regularly and systematically transacted business in and with residents of the State of Delaware, directly and/or through intermediaries, and/or committed acts of infringement in the State of Delaware as alleged more particularly below. Jinhe USA has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware and/or by knowing that the products would be shipped into the State of Delaware. Celanese's causes of action arise, at least in part, from Jinhe USA's contacts with and activities in the State of Delaware.

13. The Court has personal jurisdiction over UMC LLC at least because UMC LLC is organized and exists under the laws of the State of Delaware. On information and belief, UMC LLC has regularly and systematically transacted business in and with residents of the State of Delaware, directly and/or through intermediaries, and/or committed acts of infringement in the State of Delaware as alleged more particularly below. UMC LLC has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware and/or by

knowing that the products would be shipped into the State of Delaware. Celanese's causes of action arise, at least in part, from UMC LLC's contacts with and activities in the State of Delaware.

14. The Court has personal jurisdiction over Prinova at least because Prinova is organized and exists under the laws of the State of Delaware. On information and belief, Prinova has regularly and systematically transacted business in and with residents of the State of Delaware, directly and/or through intermediaries, and/or committed acts of infringement in the State of Delaware as alleged more particularly below. Prinova has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware and/or by knowing that the products would be shipped into the State of Delaware. Celanese's causes of action arise, at least in part, from Prinova's contacts with and activities in the State of Delaware.

15. The Court has personal jurisdiction over Agridient at least because Agridient is organized and exists under the laws of the State of Delaware. On information and belief, Agridient has regularly and systematically transacted business in and with residents of the State of Delaware, directly and/or through intermediaries, and/or committed acts of infringement in the State of Delaware as alleged more particularly below. Agridient has also placed infringing products into the stream of commerce by shipping those products into the State of Delaware and/or by knowing that the products would be shipped into the State of Delaware. Celanese's causes of action arise, at least in part, from Agridient's contacts with and activities in the State of Delaware.

16. Venue is proper in this judicial district for Jinhe, pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c), because a substantial part of the events giving rise to the claims in this action occurred in this district.

17. Venue is proper in this judicial district for Jinhe USA, pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c), because Jinhe USA, as a Delaware corporation, resides in this judicial district.

In addition, Jinhe USA has committed acts of infringement in the State of Delaware, including by selling and distributing infringing products in the State of Delaware.

18. Venue is proper in this judicial district for UMC LLC, pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c), because UMC LLC, as a Delaware corporation, resides in this judicial district. In addition, UMC LLC has committed acts of infringement in the State of Delaware, including by selling and distributing infringing products in the State of Delaware.

19. Venue is proper in this judicial district for Prinova, pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c), because Prinova, as a Delaware corporation, resides in this judicial district. In addition, Prinova has committed acts of infringement in the State of Delaware, including by selling and distributing infringing products in the State of Delaware.

20. Venue is proper in this judicial district for Agridient, pursuant to 28 U.S.C. §§ 1400 and 1391(b) and (c), because Agridient, as a Delaware corporation, resides in this judicial district. In addition, Agridient has committed acts of infringement in the State of Delaware, including by selling and distributing infringing products in the State of Delaware.

THE PATENTS-IN-SUIT

21. On July 24, 2018, the United States Patent and Trademark Office ("USPTO") duly and legally issued U.S. Patent No. 10,029,998 ("the '998 patent"), titled "Acesulfame Potassium Compositions and Processes for Producing Same," naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors.

22. On March 19, 2019, the USPTO duly and legally issued the '164 patent, titled "Acesulfame Potassium Compositions and Processes for Producing Same," naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors. The '164 patent is a continuation of the '998 patent. A true and correct copy of the '164 patent is attached hereto as Exhibit A.

23. On March 17, 2020, the USPTO duly and legally issued the ’096 patent, titled “Acesulfame Potassium Compositions and Processes for Producing Same,” naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors. The ’096 patent is a continuation of the ’164 patent, which is a continuation of the’998 patent. A true and correct copy of the ’096 patent is attached hereto as Exhibit B.

24. The ’998 patent, the ’164 patent, and the ’096 patent are collectively referred to herein as the “’998 Patent Family.”

25. The ’998 Patent Family is directed to compositions and processes for producing high purity acesulfame potassium. Acesulfame potassium has an intense, sweet taste and has been used in many food-related applications as a sweetener.

26. In conventional acesulfame potassium production processes, sulfamic acid and an amine, e.g., triethylamine, are reacted to form an amidosulfamic acid salt, such as a trialkyl ammonium amidosulfamic acid salt. The amidosulfamic acid salt is then reacted with diketene to form an acetoacetamide salt. The acetoacetamide salt may be cyclized, hydrolyzed, and neutralized to form acesulfame potassium.

27. The acesulfame potassium product and the intermediate compositions produced by conventional methods contain undesirable impurities, such as acetoacetamide-N-sulfonic acid. Limits for the content of various impurities are often set by governmental regulations and/or customer guidelines.

28. Separation of many of these impurities using standard purification procedures such as evaporation, crystallization, and/or filtration has proven difficult, resulting in consumer dissatisfaction and the failure to meet standards.

29. Prior to the invention of the ’998 Patent Family, the need existed for improved processes for producing high purity acesulfame potassium composition in which the formation of impurities such as acetoacetamide-N-sulfonic acid during synthesis is reduced or eliminated.

30. The ’998 Patent Family provides a novel, technical solution to these problems in part by providing improved processes for producing high purity acesulfame potassium compositions in which the formation of impurities such as acetoacetamide-N-sulfonic acid and acetoacetamide are reduced or eliminated.

31. One process disclosed by the ’998 Patent Family for producing high purity acesulfame potassium comprises the steps of forming a cyclic sulfur trioxide adduct; hydrolyzing the cyclic sulfur trioxide adduct to form an acesulfame-H composition comprising acesulfame-H; neutralizing the acesulfame-H in the acesulfame-H composition to form a crude acesulfame potassium composition comprising acesulfame potassium and less than 2800 wppm acetoacetamide-N-sulfonic acid, wherein the neutralizing step is conducted or maintained at a pH at or below 11.0; and treating the crude acesulfame potassium composition to form the finished acesulfame potassium composition comprising acesulfame potassium and less than 37 wppm acetoacetamide-N-sulfonic acid.

32. Using the improved processes for producing high purity acesulfame potassium disclosed and claimed by the ’998 Patent Family result in substantial cost-savings for the manufacture of acesulfame potassium by eliminating or reducing the need to separate acetoacetamide-N-sulfonic acid from the finished acesulfame potassium composition.

33. On July 24, 2018, the USPTO duly and legally issued U.S. Patent No. 10,030,000 (“the ’000 patent”), titled “Acesulfame Potassium Compositions and Processes for Producing Same,” naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors.

34. On March 12, 2019, the USPTO duly and legally issued the ’316 patent, titled “Acesulfame Potassium Compositions and Processes for Producing Same,” naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors. The ’316 patent is a continuation of the ’000 patent. A true and correct copy of the ’316 patent is attached hereto as Exhibit C.

35. On March 17, 2020, the USPTO duly and legally issued the ’097 patent, titled “Acesulfame Potassium Compositions and Processes for Producing Same,” naming Christoph Mollenkopf, Peter Groer and Arvind Yadav as inventors. The ’097 patent is a continuation of the ’316 patent, which is a continuation of the ’000 patent. A true and correct copy of the ’097 patent is attached hereto as Exhibit D.

36. The ’000 patent, the ’316 patent, and the ’097 patent are collectively referred to herein as the “’000 Patent Family.”

37. The ’000 Patent Family is directed to compositions and processes for producing high purity acesulfame potassium.

38. In conventional acesulfame potassium production processes, the acesulfame potassium product and the intermediate compositions produced by conventional methods contain undesirable impurities, such as 5-chloro-acesulfame potassium.

39. Due to their similar chemical structures and similarities, separation of 5-chloro-acesulfame potassium from the desired non-chlorinated acesulfame potassium product using standard purification procedures such as crystallization has proven difficult, resulting in consumer dissatisfaction and the failure to meet standards.

40. Prior to the invention of the ’000 Patent Family, the need existed for improved processes for producing high purity acesulfame potassium composition in which the formation of 5-chloro-acesulfame potassium during synthesis is reduced or eliminated.

41. The ’000 Patent Family provides a novel, technical solution to these problems in part by providing improved processes for producing high purity acesulfame potassium compositions in which the formation of impurities such as 5-chloro-acesulfame potassium is reduced or eliminated.

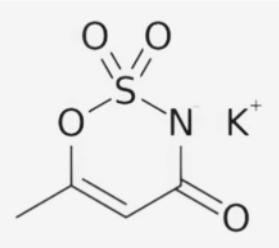
42. One process for producing high purity acesulfame potassium comprises the steps of providing a cyclizing agent composition comprising a cyclizing agent and a solvent and having an initial temperature, cooling the cyclizing agent composition to form a cooled cyclizing agent composition having a cooled temperature less than 35°C., reacting an acetoacetamide salt with the cyclizing agent in the cooled cyclizing agent composition to form a cyclic sulfur trioxide adduct composition comprising cyclic sulfur trioxide adduct; and, forming from the cyclic sulfur trioxide adduct in the cyclic sulfur trioxide adduct composition the finished acesulfame potassium composition comprising non-chlorinated acesulfame potassium and less than 39 wppm 5-chloro-acesulfame potassium. The cooled temperature is at least 2°C. less than the initial temperature.

43. Using the improved processes for producing high purity acesulfame potassium disclosed and claimed by the ’000 Patent Family results in increased yields and substantial cost-savings for the manufacture of acesulfame potassium by eliminating or reducing the need to separate 5-chloro-acesulfame potassium from the finished acesulfame potassium composition.

DEFENDANTS’ INFRINGING PRODUCTS AND ACTIVITIES

44. Jinhe purports to be “an enterprise dedicated to serving healthy life and advanced manufacturing, and specializing in chemical, biological and new material businesses, and is a major manufacturer of sweeteners *acesulfame* and sucralose and spice maltol.” (Ex. E at 1 (emphasis added).) Jinhe claims to be the largest producer of Acesulfame-K (“Ace-K”) in the world. (Ex. F at 1.)

45. Jinhe manufactures and supplies Ace-K ("Jinhe's Ace-K" or "Accused Product"). On its company website, Jinhe describes the Accused Product as "Acesuifame-k[:] Potassium acetylsulfonate (also known as acesulfame, AK sugar)" having the molecular formula $C_4H_4NO_4SK$. (Ex. E at 3.)[1] Jinhe describes its Ace-K as having the formula:



(*Id.* at 4.)

46. According to Jinhe's 2019 Annual Report, as a public traded company on the Shenzhen Stock Exchange, Jinhe's "food additive products acesulfame K, sucralose and maltol are in a leading position in the global production capacity and market share." (Ex. G at 8.) Jinhe's 2019 Annual Report further states: "In the field of food additive production, the production technology of methyl, ethyl maltol, acesulfame K and sucralose, the company through years of theoretical exploration and production practice, researched and developed a series of core technologies with international leading level." (*Id.*) Jinhe "uses its own chemical engineering technology and talent advantages accumulated over the years in organic synthesis, consolidate and expand the market share of acesulfame and sucralose, and achieve industry-leading yield and cost levels." (*Id.* at 8–9.)

47. For fiscal years 2017 through 2019, Jinhe reported global revenues of more than $1.9 billion[2] (Ex. F at 5–6). On information and belief, a substantial portion of this revenue is

[1] On information and belief, "Acesuifame-k" and "potassium acetylsulfonate" refer to acesulfame potassium or Ace-K.

[2] Jinhe's revenue is converted to U.S. dollars based on an exchange rate of 1 U.S. dollar to 6.58 Chinese yuan.

attributable to infringing sales made in the United States, including, without limitation: (a) Jinhe's Ace-K sold directly to consumers and companies in the United States; and (b) Jinhe's Ace-K sold abroad and with knowledge that those products would be then imported into the United States for sale and/or use.

48. Jinhe's Ace-K is described as having a "colorless crystalline or white crystalline powder, odorless appearance." (Ex. E at 3.) Jinhe states that the Accused Product is "widely used in food, beverage, oral hygiene, cosmetics, pharmaceuticals and other fields." (*Id.*)

49. Jinhe's Ace-K ("Jing Da®") is available for order on its global "Products" website. (Ex. F at 2.) On this website, Jinhe describes the Accused Product as "[a]cesulfame potassium is a calorie-free sugar substitute." (*Id.*) Jinhe further describes the Accused Product as: "[s]imilar in taste to sucrose," "[h]igh sweetness: 200 times sweeter than sucrose, as sweet as aspartame," "[e]asily dissolved in water under room temperature," "[c]alorie-free," [s]ynergistic effect: Acesulfame-K could be used with other sweeteners which can increase 20–40% sweetness," and "[g]reat stability under heat, moderately basic and acidic condition." (*Id.*)

50. Jinhe claims the Accused Product has the following advantages: "[h]igh stability," "[a]cesulfame-K can preserve for 10 years under general condition," "[n]o sign of any decomposition," "[n]o absorption of moisture in the air," "[s]table to high temperature of 225˚C," "[s]table with PH2-10, does not react with other food composition or additives when used together," "[s]ugarless, calorie free, good for tooth," "[r]educes the production cost," and "[g]uarantee and extend the product shelf life." (*Id.*)

51. On its website, Jinhe provides customers with a more detailed description of the Accused Product in Jinhe's Ace-K Product Manual, which describes Jinhe's Ace-K as "Acesulfame potassium (Acesulfame-K)." (Ex. H at 3.) Jinhe's Ace-K Product Manual describes

Jinhe's Ace-K as having an overall organic impurity level of less than 20 wppm[3], which is "inspected per batch." (*Id.* at 5.) It lists additional impurity levels, including: less than 0.1% sulfate (calculated as SO_4^{2-} and inspected per batch); between 17.0–21.0% potassium (calculated by K and tested once a week); less than 1 mg/kg lead (tested one a week); less than 5 ppm heavy metal (tested once per week); less than 1.125% organic impurity A (tested once per year); and less than 20 ppm organic impurity B (tested once per year). (*Id.*)

52. On information and belief, organic impurity A refers to acetoacetamide, based on the European Pharmacopoeia 8.0, (Ex. I at 2), which is cited in Jinhe's Ace-K Product Manual as "EP8.0," (Ex. H at 5.)

53. On information and belief, organic impurity B refers to 5-chloro-acesulfame potassium, based on the European Pharmacopoeia 8.0, (Ex. I at 2), which is cited in Jinhe's Ace-K Product Manual as "EP8.0," (Ex. H at 5.)

54. On information and belief, Jinhe designs, makes, uses, sells, offers for sale, and/or imports into the United States the Accused Product.

55. On information and belief, Jinhe uses Celanese's patented processes to produce the Accused Product.

56. Jinhe sells the Accused Product on its global "Products" website. (Ex. F.)

57. On information and belief, Jinhe has two production bases, "Anhui Lai" and "Dingyuan Salt Chemical Industrial Parks," and has set up research institutes and application R&D operations centers in Hefei and Nanjing, China, respectively. (Ex. J at 1.) On information and belief, in early 2016, Jinhe enlarged its Ace-K (i.e. the Accused Product) production capacity from 9,000 t/a to 12,000 t/a. (Ex. D).

[3] Jinhe's Ace-K Product Manual indicates the overall organic impurity level is less than 20 mg/kg, which converts to 20 wppm.

58. On information and belief, Jinhe has and/or is importing, and has participated in the importation of, the Accused Product into the United States. Jinhe packages the Accused Product in 320mm*420mm cardboard barrels and 360mm*360mm*270mm cardboard boxes. (Ex. F at 2.) The packaged Accused Product has a net weight of 25kg and is sealed by double, food safe polyethylene bags. (*Id.*)

59. Jinhe USA has imported the Accused Product into the United States.

60. United States Custom's records on ImportGenius (www.importgenius.com) show that Jinhe USA imported Jinhe's Ace-K into the United States. (Ex. M at 1.)

61. On its website ("JinheUSA's Website"), Jinhe USA claims to be "the preferred sweeteners and food ingredients supplier for major food & beverage companies around the world." (Ex. K at 7.) Jinhe USA further states "we are the preferred choice of America's largest brands for sweeteners, additives and food ingredients." (*Id.* at 8.) Jinhe USA further states "[t]oday, Jinhe's distribution channels span the globe and we have established ourselves as the industry leader." (*Id.* at 1–2.)

62. On JinheUSA's Website, Jinhe USA also states "[h]ere at Chicago, Illinois, established in 2014, Jinhe USA is committed to distributing our North America and Latin America clients products in an efficient and stress-free fashion, *We receive product shipments from parent company in China to US warehouse, where we are able to pack and ship the products based on the needs and desires of our clients.*" (Ex. K at 2. (emphasis added).)

63. Jinhe USA lists "Acesulfame-K" as a product on JinheUSA's Website and describes the "Acesulfame-K" as "Acesulfame Potassium (Ace-K)" with the molecular formula $C_4H_4KNO_4S$. (Ex. K at 11, 14.)

64. On JinheUSA's Website, Jinhe USA describes Jinhe's Ace-K as having "high stability, pure taste, and is the best sweetener for soft drinks." (Ex. K at 13.) Jinhe USA further describes Jinhe's Ace-K as "sweeter than sucrose, sugarless, and calorie-free. It can easily be dissolved in water at room temperature. Acesulfame Potassium can be mixed with other sweeteners, further increasing the sweetness." (*Id.*)

65. Jinhe USA repeatedly states on JinheUSA's Website that Jinhe's Ace-K is "certified and approved by FDA." (Ex. K at 4, 12.)

66. UMC LLC has imported Jinhe's Ace-K into the United States.

67. United States Custom's records on ImportGenius (www.importgenius.com) show that UMC LLC imported Jinhe's Ace-K into the United States. (Ex. N at 1.)

68. Prinova has imported Jinhe's Ace-K into the United States.

69. United States Custom's records on ImportGenius (www.importgenius.com) show that Prinova imported Jinhe's Ace-K into the United States. (Ex. O at 1.)

70. Prinova imported Jinhe's Ace-K into the United States as recently as February 6, 2021. (Ex. Q at 1).

71. On its website, Prinova has an "Ingredients list" for the ingredients it imports, which lists "Ace-K" and states that Prinova has a "Full team in China." (Ex. L at 1–2.)

72. Agridient has imported Jinhe's Ace-K into the United States.

73. United States Custom's records on ImportGenius (www.importgenius.com) show that Agridient imported Jinhe's Ace-K into the United States. (Ex. P at 1.)

COUNT I
INFRINGEMENT OF U.S. PATENT NO. 10,233,164

74. Celanese incorporates by reference paragraphs 1 through 73 as though fully set forth herein.

75. The ’164 patent is valid and enforceable.

76. Celanese owns the entire right, title, and interest in and to the ’164 patent, including the right to sue and recover damages, including damages for past infringement.

77. Defendants had actual knowledge of the ’164 patent at least as early as the filing of theComplaint.

78. Defendants knew of their infringement of the ’164 patent at least as early as the filing of the Complaint

79. Each of Defendants has infringed and continues to infringe at least claim 1 of the ’164 patent under 35 U.S.C. § 271(g) by importing in to the United States or offering to sell, selling, or using within the United States, without license or authority, the Accused Product, which is made by the process of at least claim 1 of the ’164 patent.

80. Jinhe has induced infringement and continues to induce infringement of at least claim 1 of the ’164 patent in violation of 35 U.S.C. § 271(b), either literally and/or under the doctrine of equivalents. On information and belief, Jinhe, knowing at least as of the date of the Complaint that the Accused Product was produced by the method of at least claim 1 of the ’164 patent, has acted with the specific intent to induce third parties, including suppliers and/or retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, the Accused Product.

81. On information and belief, the Accused Product is produced using the processes recited in at least claim 1 of the ’164 patent.

82. For example, claim 1 of the ’164 patent recites a “process for producing a finished acesulfame potassium composition, the process comprising the steps of: (a) forming a cyclic sulfur trioxide adduct; (b) hydrolyzing the cyclic sulfur trioxide adduct to form an acesulfame-H

composition comprising acesulfame-H; (c) neutralizing the acesulfame-H in the acesulfame-H composition to form a crude acesulfame potassium composition, wherein the neutralizing step is conducted at a pH at or below 11.0; and (d) treating the crude acesulfame potassium composition to form a finished acesulfame potassium composition comprising acesulfame potassium and less than 37 wppm acetoacetamide-N-sulfonic acid."

83. On information and belief, the Accused Product is a finished acesulfame potassium composition having the same formula described in the '164 patent.

84. On information and belief, the Accused Product contains the impurity acetoacetamide-N-sulfonic acid below the claimed maximum limit of 37 wppm.

85. Jinhe's Ace-K Product Manual says it is "acceptable" for the Accused Product to have an overall organic impurity level of less than 20 wppm. (Ex. H at 4–5.)

86. On information and belief, Jinhe's use of the process of at least claim 1 of the '164 patent allows Jinhe to produce acesulfame potassium containing less than 37 wppm acetoacetamide-N-sulfonic acid at a lower cost than if Jinhe produced the same acesulfame potassium product without using the process of claim 1 of the '164 patent.

87. Celanese has been and continues to be irreparably harmed by Defendants' past and continuing infringement of at least claim 1 of the '164 patent.

88. Upon information and belief, Defendants have willfully infringed the '164 patent by directly and/or indirectly infringing the '164 patent with knowledge that its actions constituted infringement at least as of the date of the filing of the Complaint.

89. Celanese is entitled to recover from Defendants all damages Celanese has sustained as a result of Defendants' infringement of the '164 patent.

COUNT II
INFRINGEMENT OF U.S. PATENT NO. 10,590,096

90. Celanese incorporates by reference paragraphs 1 through 89 as though fully set forth herein.

91. The ’096 patent is valid and enforceable.

92. Celanese owns the entire right, title, and interest in and to the ’096 patent, including the right to sue and recover damages, including damages for past infringement.

93. Defendants had actual knowledge of the ’096 patent at least as early as the filing of the Complaint.

94. Defendants knew of their infringement of the ’096 patent at least as early as the filing of the Complaint.

95. Each of Defendants has infringed and continues to infringe at least claim 1 of the ’096 patent under 35 U.S.C. § 271(g) by importing into the United States or offering to sell, selling, or using within the United States, without license or authority, the Accused Product made by the process of at least claim 1 of the ’096 patent.

96. Jinhe has induced infringement and continues to induce infringement of at least claim 1 of the ’096 patent in violation of 35 U.S.C. § 271(b), either literally and/or under the doctrine of equivalents. On information and belief, Jinhe, knowing at least as of the date of the Complaint that the Accused Product was produced by the process of at least claim 1 of the ’096 patent, has acted with the specific intent to induce third parties, including suppliers and/or retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, the Accused Product.

97. On information and belief, the Accused Product is produced using the processes recited in at least claim 1 of the ’096 patent.

98. For example, claim 1 of the ’096 patent recites a “process for producing a finished acesulfame potassium composition, the process comprising the steps of: (a) forming a cyclic sulfur trioxide adduct; (b) hydrolyzing the cyclic sulfur trioxide adduct to form an acesulfame-H composition comprising acesulfame-H; (c) neutralizing the acesulfame-H in the acesulfame-H composition to form a crude acesulfame potassium composition, wherein the neutralizing step is conducted at a pH of from 8 to 11; and (d) treating the crude acesulfame potassium composition to form a finished acesulfame potassium composition comprising acesulfame potassium and less than 37 wppm acetoacetamide-N-sulfonic acid, wherein the treating step (d) comprises a concentration operation and a separation operation, and wherein the concentration operation is conducted at a temperature below 90°C.”

99. On information and belief, the Accused Product is a finished acesulfame potassium composition having the same formula described in the ’096 patent.

100. On information and belief, the Accused Product contains the impurity acetoacetamide-N-sulfonic acid at a level below the claimed maximum limit of 37 wppm.

101. Jinhe’s Ace-K Product Manual says it is “acceptable” for the Accused Product to have an overall organic impurity level of less than 20 wppm. (Ex. H at 4–5.)

102. On information and belief, Jinhe’s use of the process of claim 1 of the ’096 patent allows Jinhe to produce acesulfame potassium containing less than 37 wppm acetoacetamide-N-sulfonic acid at a lower cost than if Jinhe produced the same acesulfame potassium product without using the process of claim 1 of the ’096 patent.

103. Celanese has been and continues to be irreparably harmed by Defendants’ past and continuing infringement of at least claim 1 of the ’096 patent.

104. Upon information and belief, Defendants have willfully infringed the ’096 patent by directly and/or indirectly infringing the ’096 patent with knowledge that its actions constituted infringement at least as of the date of the filing of the Complaint.

105. Celanese is entitled to recover from Defendants all damages Celanese has sustained as a result of Defendants’ infringement of the ’096 patent.

COUNT III
INFRINGEMENT OF U.S. PATENT NO. 10,227,316

106. Celanese incorporates by reference paragraphs 1 through 105 as though fully set forth herein.

107. The ’316 patent is valid and enforceable.

108. Celanese owns the entire right, title, and interest in and to the ’316 patent, including the right to sue and recover damages, including damages for past infringement.

109. Defendants had actual knowledge of the ’316 patent at least as early as the filing of the Complaint.

110. Defendants knew of their infringement of the ’316 patent at least as early as the filing of the Complaint.

111. Each of Defendants has infringed and continues to infringe at least claim 1 of the ’316 patent under 35 U.S.C. § 271(g) by importing into the United States or offering to sell, selling, or using within the United States, without license or authority, acesulfame potassium made by process of at least claim 1 the ’316 patent.

112. Jinhe has indirectly infringed and continues to indirectly infringe at least claim 1 of the ’316 patent in violation of 35 U.S.C. § 271(b), either literally and/or under the doctrine of equivalents. On information and belief, Jinhe, knowing at least as of the date of the Complaint that the Accused Product was produced by the process of at least claim 1 of the ’316 patent, has

acted with the specific intent to induce third parties, including suppliers and/or retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, the Accused Product.

113. On information and belief, the Accused Product is produced using the processes recited in at least claim 1 of the ’316 patent.

114. For example, claim 1 of the ’316 patent recites a “process for producing a finished acesulfame potassium composition, the process comprising: reacting an acetoacetamide salt with a cyclizing agent composition having a temperature of less than 35°C. wherein the cyclizing agent composition comprises a sulfur trioxide and a solvent, and wherein the reacting of the acetoacetamide salt with the cyclizing composition forms a cyclic sulfur trioxide adduct composition comprising cyclic sulfur trioxide adduct; and forming a finished acesulfame potassium composition from the cyclic sulfur trioxide adduct, wherein the finished acesulfame composition comprises non-chlorinated acesulfame potassium and less than 39 wppm 5-chloro-acesulfame potassium.”

115. On information and belief, the Accused Product is a finished acesulfame potassium composition having the same formula described in the ’316 patent.

116. On information and belief, the Accused Product contains the impurity 5-chloro-acesulfame potassium at a level below the claimed maximum limit of 39 wppm.

117. Jinhe’s Ace-K Product Manual says it is “acceptable” for Jinhe’s Ace-K to have an overall organic impurity level of less than 20 wppm. (Ex. H at 4–5.)

118. On information and belief, Jinhe’s use of the process of claim 1 of the ’316 patent allows Jinhe to produce acesulfame potassium containing less than 39 wppm 5-chloro-acesulfame

potassium with higher yields at a lower cost than if Jinhe produced the same acesulfame potassium product without using the process of claim 1 of the ’316 patent.

119. Celanese has been and continues to be irreparably harmed by Defendants’ past and continuing infringement of at least claim 1 of the ’316 patent.

120. Upon information and belief, Defendants have willfully infringed the ’316 patent by directly and/or indirectly infringing the ’316 patent with knowledge that its actions constituted infringement at least as of the date of the filing of the Complaint.

121. Celanese is entitled to recover from Defendants all damages Celanese has sustained as a result of Defendants’ infringement of the ’316 patent.

COUNT IV
INFRINGEMENT OF U.S. PATENT NO. 10,590,097

122. Celanese incorporates by reference paragraphs 1 through 121 as though fully set forth herein.

123. The ’097 patent is valid and enforceable.

124. Celanese owns the entire right, title, and interest in and to the ’097 patent, including the right to sue and recover damages, including damages for past infringement.

125. Defendants had actual knowledge of the ’097 patent at least as early as the filing of the Complaint.

126. Defendants knew of their infringement of the ’097 patent at least as early as the filing of the Complaint.

127. Each of Defendants has infringed and continues to infringe at least claim 1 of the ’097 patent under 35 U.S.C. § 271(g) by importing into the United States or offering to sell, selling, or using within the United States, without license or authority, acesulfame potassium made by process of at least claim 1 of the ’097 patent.

128. Jinhe has induced infringement and continues to induce infringement of at least claim 1 of the ’097 patent in violation of 35 U.S.C. § 271(b), either literally and/or under the doctrine of equivalents. On information and belief, Jinhe, knowing at least as of the date of the Complaint that the Accused Product was made by the process of at least claim 1 of the ’097 patent, has acted with the specific intent to induce third parties, including suppliers and retailers/distributors, to sell, offer for sale, use, and/or import into the United States, without license or authority, the Accused Product.

129. On information and belief, Celanese alleges that the Accused Product infringes at least claim 1 of the ’097 patent. Celanese makes this preliminary identification of the infringing product and infringed claims without the benefit of discovery or claim construction in this action, and expressly reserves the right to supplement and revise this identification of infringing products based on additional information obtained through discovery or otherwise.

130. On information and belief, the Accused Product is produced using the process recited in at least claim 1 of the ’097 patent.

131. For example, claim 1 of the ’097 patent recites a “process for producing a finished acesulfame potassium composition, the process comprising: reacting an acetoacetamide salt with a cyclizing agent composition having a temperature of from −15°C. to 25°C., wherein the cyclizing agent composition comprises a sulfur trioxide and a solvent, and wherein the reacting of the acetoacetamide salt with the cyclizing composition forms a cyclic sulfur trioxide adduct composition comprising cyclic sulfur trioxide adduct, wherein the cyclization reaction time less than 35 minutes; and forming a finished acesulfame potassium composition from the cyclic sulfur trioxide adduct, wherein the finished acesulfame composition comprises non-chlorinated acesulfame potassium and less than 39 wppm 5-chloro-acesulfame potassium.”

132. On information and belief, the Accused Product is a finished acesulfame potassium composition having the same formula described in the ’097 patent.

133. On information and belief, the Accused Product contains the impurity 5-chloro-acesulfame potassium at a level below the claimed maximum limit of 39 wppm.

134. Jinhe’s Ace-K Product Manual says it is “acceptable” for Jinhe’s Ace-K to have an overall organic impurity level of less than 20 wppm. (Ex. H at 4–5.)

135. On information and belief, Jinhe’s use of the process of claim 1 of the ’097 patent allows Jinhe to produce acesulfame potassium containing less than 39 wppm 5-chloro-acesulfame potassium with higher yields at a lower cost than if Jinhe produced the same acesulfame potassium product without using the process of claim 1 of the ’097 patent.

136. Celanese has been and continues to be irreparably harmed by Defendants’ past and continuing infringement of at least claim 1 of the ’097 patent.

137. Upon information and belief, Defendants have willfully infringed the ’097 patent by directly and/or indirectly infringing the ’097 patent with knowledge that its actions constituted infringement at least as of the date of the filing of the Complaint.

138. Celanese is entitled to recover from Defendants all damages Celanese has sustained as a result of Defendants’ infringement of the ’097 patent.

JURY DEMAND

Pursuant to Federal Rule of Civil Procedure 38(b), Celanese demands a jury trial on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Celanese respectfully prays for relief as follows:

(a) Judgment that Defendants are liable for infringement and/or inducing infringement of one or more claims of each of the Asserted Patents;

(b) Compensatory damages in an amount according to proof, and in any event no less than reasonable royalty;

(c) Judgment that Defendants' infringement and/or inducement of infringement is willful and enhancement of damages up to three times under 35 U.S.C. § 284;

(d) An award of pre-judgment and post-judgment interest on the damages caused by Defendants' infringing activities and other conduct complained of herein;

(e) An award to Celanese of its costs and reasonable expenses to the fullest extent permitted by law;

(f) A permanent injunction against each Defendants' direct infringement, induced infringement, and/or contributory infringement of the Asserted Patents, including against each Defendants' agents, employees, representatives, successors, and assigns, and those acting in privity or in concert with them; and

(g) Any other and further relief as the Court may deem just and proper.

Dated: April 29, 2021

Respectfully submitted,

DLA PIPER LLP (US)

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