

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF IOWA
CENTRAL DIVISION**

| | | |
|------------------|---|----------------------------|
| FMC CORPORATION, |) | |
| |) | Case No. 4:24-cv-55 |
| Plaintiff, |) | |
| |) | |
| v. |) | |
| |) | |
| ALBAUGH, LLC, |) | JURY TRIAL DEMANDED |
| |) | |
| Defendant. |) | |

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff FMC Corporation alleges as follows for its Complaint for Patent Infringement against Defendant Albaugh, LLC:

NATURE OF THE ACTION

This is a civil action for the infringement of one or more of U.S. Patent No. 7,339,057 (“the ‘057 Patent”), U.S. Patent No. 7,276,601 (“the ‘601 Patent”), and U.S. Patent No. 7,528,260 (“the ‘260 Patent”) under 35 U.S.C. § 271 *et seq.*

PARTIES

1. Plaintiff FMC Corporation (“Plaintiff” or “FMC”) is a corporation organized and existing under the laws of the State of Delaware with its principal place of business at 2929 Walnut Street, Philadelphia, Pennsylvania 19104. FMC is an industry-leading agricultural sciences company known for its innovative agrochemicals. For over a century, FMC’s solutions have helped customers throughout the world enhance their crop yield and quantity.

2. On information and belief, Defendant Albaugh, LLC (“Defendant” or “Albaugh”) is a limited liability company organized and existing under the laws of the State of Iowa, with its principal place of business at 1525 NE 36th Street, Ankeny, Iowa 50021.

JURISDICTION AND VENUE

3. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331 and 1338(a) because it arises under the patent laws of the United States, including 35 U.S.C. § 271.

4. This Court has personal jurisdiction over this action because Defendant is a limited liability company organized and existing under the laws of the State of Iowa, with its principal place of business in Ankeny, Iowa.

5. Venue in this District is proper under 28 U.S.C. §§ 1391 and 1400(b) at least because Defendant resides in this District.

PATENTS-IN-SUIT

6. On March 4, 2008, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,339,057, titled *Method for preparing fused oxazinones from ortho-amino aromatic carboxylic acid and carboxylic acid in the presence of a sulfonyl chloride and pyridine* (“the ‘057 Patent”). A true and correct copy of the ‘057 Patent is attached as Exhibit 1.

7. The ‘057 Patent is valid and enforceable.

8. On October 2, 2007, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,276,601, titled *Method and preparing fused oxazinones* (“the ‘601 Patent”). A true and correct copy of the ‘601 Patent is attached as Exhibit 2.

9. The ‘601 Patent is valid and enforceable.

10. On May 5, 2009, the U.S. Patent and Trademark Office duly and legally issued U.S. Patent No. 7,528,260, titled *Method for preparing N-phenylpyrazole-1-carboxamides* (“the ‘260 Patent”). A true and correct copy of the ‘260 Patent is attached as Exhibit 3.

11. The ‘260 Patent is valid and enforceable.

12. FMC is the owner of all right, title, and interest in the ‘057 Patent, the ‘601 Patent, and the ‘260 Patent (collectively the “Asserted Patents”) and has the right to sue for infringement of these patents.

FACTUAL BACKGROUND

13. FMC’s long history of innovation in agricultural sciences dates back to 1883, when John Bean invented a new insecticide spray pump. Mr. Bean developed this pump to combat an insect infestation that was ravaging orchards and endangering the livelihood of growers. He received a patent for his invention in 1884, and its success led to the formation of the Bean Spray Pump Company, which ultimately became FMC. Since Mr. Bean’s original invention, FMC has continued to focus on innovation, investing heavily in research and development to solve the problems facing the agricultural industry.

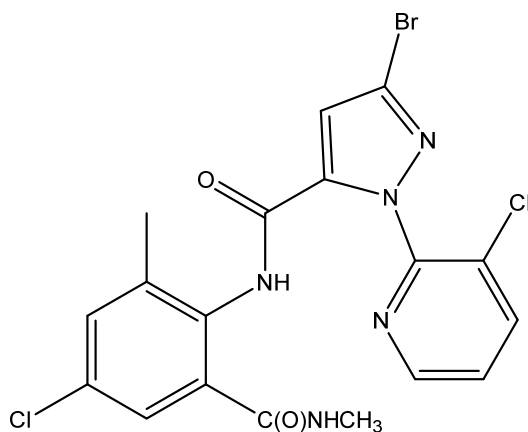
14. FMC has earned a global reputation as an innovator and leader in the development of cutting-edge products for plant health and crop protection. Through its focus on advanced technology and customer-driven research, FMC develops innovative solutions to some of the world’s most significant agricultural challenges. FMC incorporates these groundbreaking solutions into cost-effective products that enhance crop yield and quality for farmers and communities around the world.

15. FMC¹ has received several awards for its innovative products, including the Agrow Award for Application Technology and the Agrow Award for Best New Biological Product (Biostimulant). FMC is also a four-time recipient of the Agrow Award for Best R&D Pipeline.

¹ The awards mentioned in the Factual Background of this Complaint were presented to Plaintiff FMC Corporation, the former owner of the Asserted Patents (E.I. DuPont de Nemours and Company), or their agents.

16. FMC's employees and inventors work tirelessly to develop its agrochemical solutions. FMC employs approximately 8,200 individuals worldwide, many of whom have received awards for their contributions to the agricultural industry. For example, FMC's inventors have received the prestigious Kenneth Spencer Award from the American Chemical Society. This award is given in recognition of meritorious contributions to the field of agricultural and food chemistry. The American Chemical Society has also presented FMC with the Team Innovation Award for the development of chlorantraniliprole—the subject matter of the Asserted Patents.

17. Chlorantraniliprole is an anthranilic diamide insecticide that was developed by the aforementioned inventors. The chemical structure of chlorantraniliprole is depicted below:



18. Chlorantraniliprole is also known under the trademark Rynaxypyr® and is one of FMC's most successful active ingredients for insect-control solutions. FMC has commercialized a number of broad-spectrum insecticide products containing chlorantraniliprole, including products sold under the well-known brand name Coragen®.



19. Rynaxypyr® active-containing solutions are available in over 120 countries and account for approximately \$1.6 billion in annual sales.

20. FMC owns numerous patents around the world that protect compositions and processes relating to chlorantraniliprole and its production, including the Asserted Patents.

INFRINGEMENT OF THE ASSERTED PATENTS

21. FMC re-alleges and incorporates by reference the other allegations of this Complaint, as if fully set forth herein.

22. On information and belief, Defendant has made, imported, and/or used chlorantraniliprole or products containing chlorantraniliprole, including Defendant’s “Exceliprole 4SC” product (collectively, “Accused Products”), in the United States in violation of one or more of the Asserted Patents.

23. Defendant has conducted and/or commissioned tests relating to one or more Accused Product (“Chlorantraniliprole Testing Activity”).

24. Defendant has submitted information resulting from the Chlorantraniliprole Testing Activity to the United States Environmental Protection Agency (“EPA”) in support of efforts to register one or more Accused Products.

25. On November 3, 2023, after learning of Defendant’s activities relating to the Accused Products, including the Chlorantraniliprole Testing Activity, FMC notified Defendant of its concerns that Defendant’s activities in connection with the Accused Products infringed one or more patents owned by FMC, including the ‘057 Patent, the ‘601 Patent, and the ‘260 Patent.

26. In its November 3, 2023 letter, FMC requested information from Defendant about the Accused Products, including the process used to manufacture the Accused Products and a sample of the Accused Products.

27. Defendant has refused to provide any information relating to the Accused Products, including the manufacturing process used to make them.

28. On information and belief, a reasonable opportunity for discovery will show that Defendant has imported, used, and/or made Accused Products in the United States, including but not limited to in connection with the Chlorantraniliprole Testing Activities.

COUNT I

Defendant's Infringement of the '057 Patent, the '601 Patent, and/or the '260 Patent under 35 U.S.C. § 271(g)

29. FMC re-alleges and incorporates by reference the other allegations of this Complaint, as if fully set forth herein.

30. On information and belief, Defendant has infringed, literally or under the doctrine of equivalents, one or more of the '057 Patent, the '601 Patent, and the '260 Patent by importing Accused Products into the United States or using Accused Products in the United States—without authorization from FMC.

31. The '057 Patent, the '601 Patent, and the '260 Patent cover processes used to produce chlorantraniliprole, intermediates used to produce chlorantraniliprole, and processes used to produce intermediates used to produce chlorantraniliprole.

32. On information and belief, a reasonable opportunity for discovery will likely show that the Accused Products were made using a process covered by one or more claims of the '057 Patent, the '601 Patent, or the '260 Patent, either literally or under the doctrine of equivalents.

33. As part of its pre-suit efforts, FMC has requested Defendant to provide information that, on information and belief, would show that the Accused Products were made using a process covered by one or more claims of the '057 Patent, the '601 Patent, or the '260 Patent.

34. For example, FMC has requested the following information:

- Identification of all shipments of chlorantraniliprole received by Albaugh or its agent in the United States.
 - For each shipment, identify the date the shipment was received, the quantity of chlorantraniliprole, and the manufacturer of the chlorantraniliprole.
 - For each shipment, identify the full reaction pathway used to manufacture the chlorantraniliprole, from starting material to final chlorantraniliprole product.
 - For each shipment, provide a 10-gram sample of the chlorantraniliprole for analysis by FMC.
- For the chlorantraniliprole that Albaugh plans to use for its Exceliprole 4SC product, identify the supplier(s) of the technical grade chlorantraniliprole, the full reaction pathway to be used to manufacture the chlorantraniliprole, and a 10-gram sample of the chlorantraniliprole for analysis by FMC.

35. Defendant has refused to provide this information and there is no mechanism for FMC to obtain this information without the benefit of a reasonable opportunity for discovery.

36. On information and belief, Defendant has not publicly disclosed the processes that have been used to make its Accused Products.

37. FMC has not been able to test the Accused Products because these products are not yet registered by the EPA and are not yet publicly available.

38. FMC has further provided Defendant an opportunity to deny that Defendant's past or planned use of chlorantraniliprole will violate the '057 Patent, the '601 Patent, or the '260 Patent, and to provide information supporting its denial.

39. Defendant has not taken advantage of the opportunity.

40. Further in support of this Count, FMC relies in part on 35 U.S.C. § 295, which states as follows:

In actions alleging infringement of a process patent based on the importation, sale, offer for sale, or use of a product which is made from a process patented in the United States, if the court finds-

(1) that a substantial likelihood exists that the product was made by the patented process, and

(2) that the plaintiff has made a reasonable effort to determine the process actually used in the production of the product and was unable so to determine, the product shall be presumed to have been so made, and the burden of establishing that the product was not made by the process shall be on the party asserting that it was not so made.

41. To satisfy Section 295, the patentee need only present evidence that would support a reasonable conclusion that the accused product was made by the patented process.

42. The production of chlorantraniliprole is complex and requires multiple chemical synthesis steps.

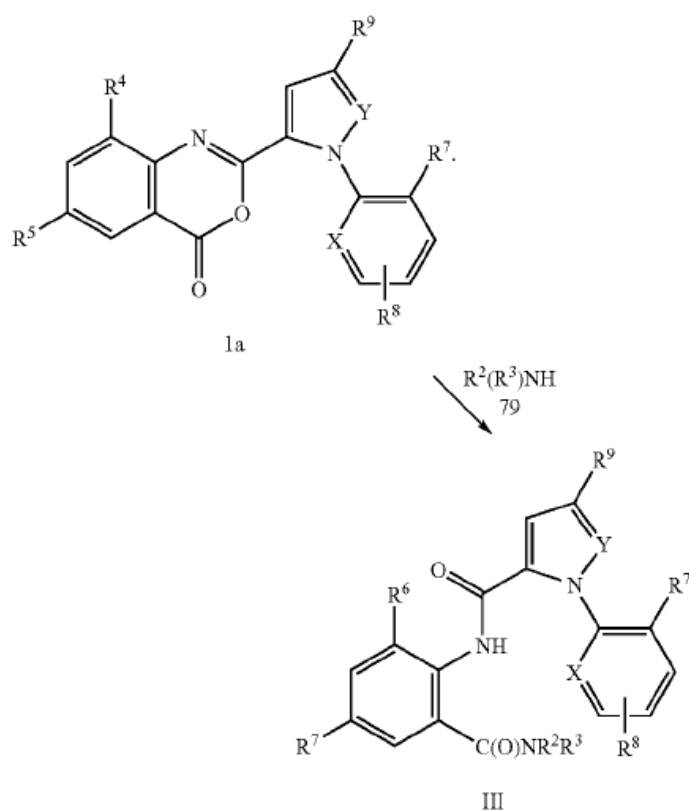
43. FMC has invested significant resources in researching and developing processes used to produce chlorantraniliprole.

44. On information and belief, all currently known viable commercial routes to produce chlorantraniliprole are covered by one or more claims of the '057 Patent, the '601 Patent, or the '260 Patent.

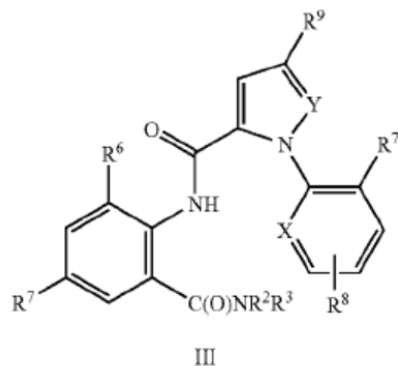
45. For example, the final chemical reaction step in the commercial production of chlorantraniliprole is either (1) reacting a benzoxazinone intermediate and an alkyl amine intermediate, or (2) coupling a carboxylic acid intermediate and an aniline intermediate in the presence of a sulfonyl chloride compound.

46. The first option for the final chemical reaction step is generally depicted in Scheme 29 of the '057 Patent at column 66, lines 1-30, with definitions of substituents provided at column 65, lines 1-46 and column 66, lines 42-60:

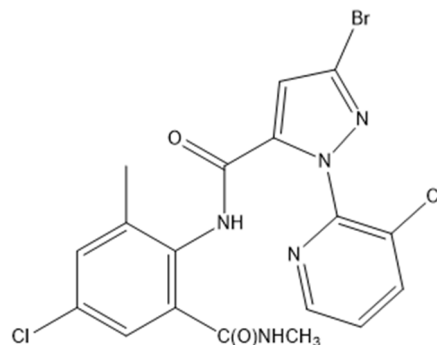
Scheme 29



47. Formula 1a of Scheme 29 of the '057 Patent is a benzoxazinone intermediate.
48. The chlorantraniliprole-containing Accused Products satisfy the requirements of Formula III of Scheme 29 of the '057 Patent. The following images compare the compound defined by Formula III of Scheme 29 of the '057 Patent to the chlorantraniliprole in the Accused Products.



Formula III of Scheme 29 of the '057 Patent



Chlorantraniliprole in the Accused Products

49. Formula III of Scheme 29 of the '057 Patent requires that X is preferably N. With respect to the chlorantraniliprole in the Accused Products, X is N. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

50. Formula III of Scheme 29 of the '057 Patent requires that Y is preferably N. With respect to the chlorantraniliprole in the Accused Products, Y is N. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

51. Formula III of Scheme 29 of the '057 Patent requires that R² is preferably H or CH₃. With respect to the chlorantraniliprole in the Accused Products, R² is H. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

52. Formula III of Scheme 29 of the '057 Patent requires that R³ is preferably C₁-C₄ alkyl. With respect to the chlorantraniliprole in the Accused Products, R³ is C₁ alkyl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

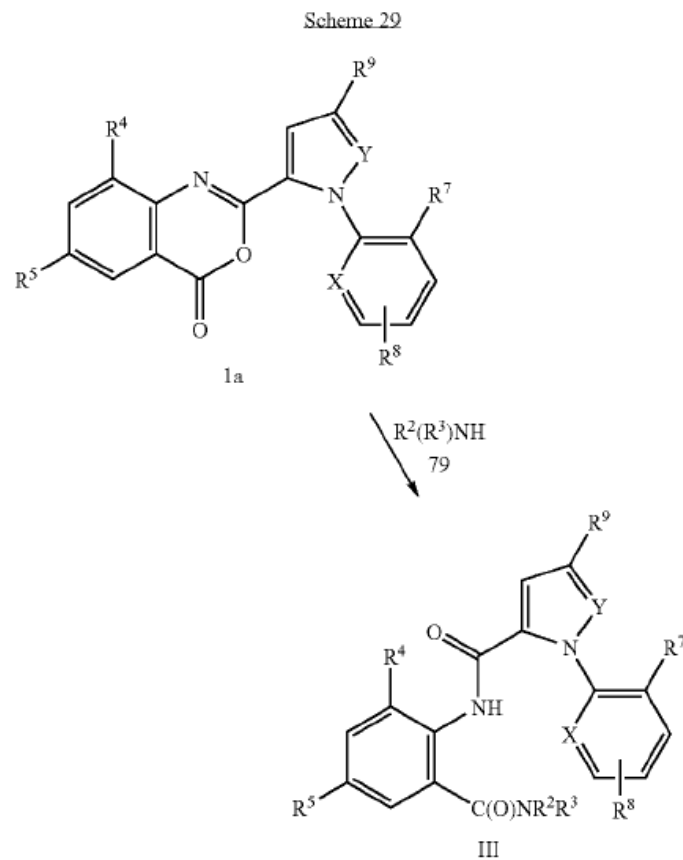
53. Formula III of Scheme 29 of the '057 Patent requires that R⁶ is H, C₁-C₄ alkyl, C₁-C₄ haloalkyl, halogen, CN or C₁-C₄ haloalkoxy. With respect to the chlorantraniliprole in the Accused Products, R⁶ is C₁ alkyl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

54. Formula III of Scheme 29 of the '057 Patent requires that R⁷ is preferably Cl or Br. With respect to the chlorantraniliprole in the Accused Products, R⁷ is Cl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

55. Formula III of Scheme 29 of the '057 Patent requires that R⁸ is preferably H. With respect to the chlorantraniliprole in the Accused Products, R⁸ is H. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

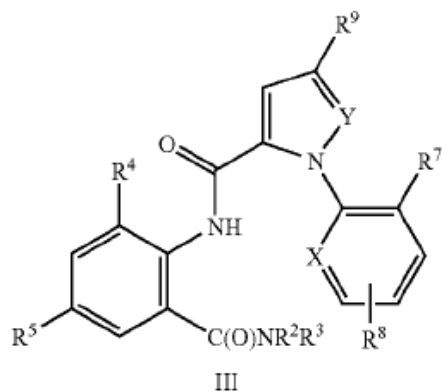
56. Formula III of Scheme 29 of the '057 Patent requires that R⁹ is preferably CF₃, OCHF₂, OCH₂CF₃, Cl, or Br. With respect to the chlorantraniliprole in the Accused Products, R⁹ is Br. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

57. The first option for the final chemical reaction step is also generally depicted in Scheme 29 of the '601 Patent at column 61, lines 5–35, with definitions of substituents provided at column 60, lines 9–52 and column 61, lines 46–64:

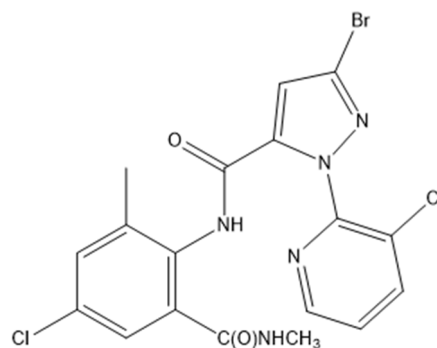


58. Formula 1a of Scheme 29 of the '601 Patent is a benzoxazinone intermediate.

59. The chlorantraniliprole-containing Accused Products satisfy the requirements of Formula III of Scheme 29 of the '601 Patent. The following images compare the compound defined by Formula III of Scheme 29 of the '601 Patent to the chlorantraniliprole in the Accused Products.



Formula III of Scheme 29 of the '601 Patent



Chlorantraniliprole in the Accused Products

60. Formula III of Scheme 29 of the '601 Patent requires that X is preferably N. With respect to the chlorantraniliprole in the Accused Products, X is N. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

61. Formula III of Scheme 29 of the '601 Patent requires that Y is preferably N. With respect to the chlorantraniliprole in the Accused Products, Y is N. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

62. Formula III of Scheme 29 of the '601 Patent requires that R² is preferably H or CH₃. With respect to the chlorantraniliprole in the Accused Products, R² is H. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

63. Formula III of Scheme 29 of the '601 Patent requires that R³ is preferably C₁-C₄ alkyl. With respect to the chlorantraniliprole in the Accused Products, R³ is C₁ alkyl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

64. Formula III of Scheme 29 of the '601 Patent requires that R⁴ is preferably CH₃, F, Cl, or Br. With respect to the chlorantraniliprole in the Accused Products, R⁴ is CH₃. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

65. Formula III of Scheme 29 of the '601 Patent requires that R⁵ is preferably CF₃, CN, F, Cl, Br, or I. With respect to the chlorantraniliprole in the Accused Products, R⁵ is Cl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

66. Formula III of Scheme 29 of the '601 Patent requires that R⁷ is preferably Cl or Br. With respect to the chlorantraniliprole in the Accused Products, R⁷ is Cl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

67. Formula III of Scheme 29 of the '601 Patent requires that R⁸ is preferably H. With respect to the chlorantraniliprole in the Accused Products, R⁸ is H. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

68. Formula III of Scheme 29 of the '601 Patent requires that R⁹ is preferably CF₃, OCHF₂, OCH₂CF₃, Cl, or Br. With respect to the chlorantraniliprole in the Accused Products, R⁹ is Br. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

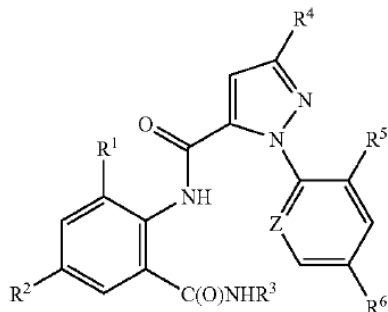
69. On information and belief, the only commercially viable methods of producing benzoxazinone intermediates used in the first option for the final chemical reaction step, as generally depicted in Scheme 29 of the '057 Patent and Scheme 29 of the '601 Patent, are covered by one or more claims in the '057 Patent and the '601 Patent.

70. On information and belief, the only commercially viable methods of performing the second option for the final chemical reaction step are covered by one or more claims of the '260 Patent.

71. For example, Claim 1 of the '260 Patent covers the following method:

A method for preparing a compound of Formula 1,

1



wherein

R¹ is CH₃ or Cl;

R² is Br, Cl, I or CN;

R³ is H or C₁-C₄ alkyl;

R⁴ is Cl, Br, CF₃, OCF₂H or OCH₂CF₃;

R⁵ is F, Cl or Br;

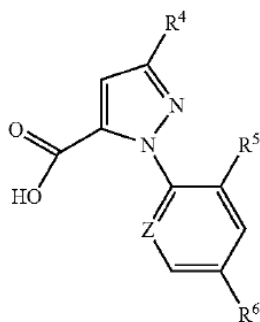
R⁶ is H, F or Cl;

Z is CR⁷ or N; and

R⁷ is H, F, Cl or Br; comprising:

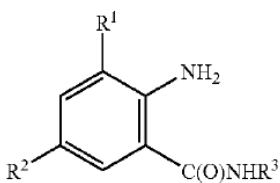
combining (1) a carboxylic acid compound of Formula 2,

2



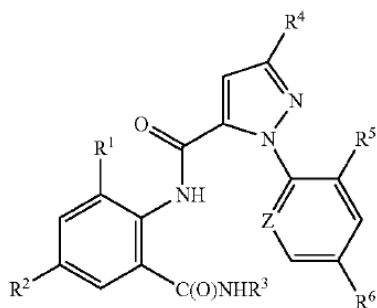
(2) an aniline compound of Formula 3,

3

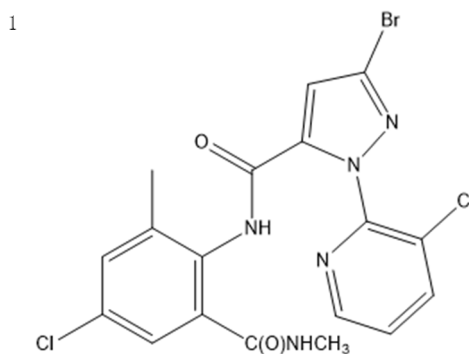


and (3) a sulfonyl chloride to form the compound of Formula 1.

72. The chlorantraniliprole in the Accused Products satisfies the requirements of Formula 1. The following images compare the compound defined by Claim 1 of the '260 Patent to the chlorantraniliprole in the Accused Products.



Claim 1 of the '260 Patent



Chlorantraniliprole in the Accused Products

73. Claim 1 of the '260 Patent requires that R^1 is CH_3 or Cl . With respect to the chlorantraniliprole in the Accused Products, R^1 is CH_3 . Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

74. Claim 1 of the '260 Patent requires that R^2 is Br , Cl , I or CN . With respect to the chlorantraniliprole in the Accused Products, R^2 is Cl . Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

75. Claim 1 of the '260 Patent requires that R^3 is H or $\text{C}_1\text{-C}_4$ alkyl. With respect to the chlorantraniliprole in the Accused Products, R^3 is a C_1 alkyl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

76. Claim 1 of the '260 Patent requires that R^4 is Cl , Br , CF_3 , OCF_2H or OCH_2CF_3 . With respect to the chlorantraniliprole in the Accused Products, R^4 is Br . Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

77. Claim 1 of the '260 Patent requires that R⁵ is F, Cl or Br. With respect to the chlorantraniliprole in the Accused Products, R⁵ is Cl. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

78. Claim 1 of the '260 Patent requires that R⁶ is H, F or Cl. With respect to the chlorantraniliprole in the Accused Products, R⁶ is H. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

79. Claim 1 of the '260 Patent requires that Z is CR⁷ or N. With respect to the chlorantraniliprole in the Accused Products, Z is or N. Thus, the chlorantraniliprole in the Accused Products satisfies this limitation.

80. There is a substantial likelihood that the method used to make the Accused Products employs one or more of the claimed methods of the '601 Patent, the '057 Patent, and the '260 Patent because these patented processes are the only commercially viable processes for the final chemical reaction step to produce chlorantraniliprole.

81. FMC has made a reasonable effort to determine the process actually used in the production of Defendant's Accused Products, but Defendant was unable or unwilling to provide this information as of the date of this Complaint.

82. FMC will continue to make reasonable efforts to obtain this information with the benefit of discovery in this case. If through reasonable discovery efforts FMC is unable to obtain this information, pursuant to 35 U.S.C. § 295, the Accused Products should be presumed to have been made by the patented processes as asserted herein, and the burden shall shift to Defendant to establish that the Accused Products were not made by the patented processes.

83. On information and belief, Defendant's infringing acts will continue unless restrained by this Court.

84. Defendant's actions have caused and are continuing to cause irreparable harm to FMC, which may not be fully compensable by monetary damages.

85. FMC is entitled to recover damages adequate to compensate FMC for Defendant's infringement of one or more of the '057 Patent, the '601 Patent, and the '260 Patent.

86. Defendant's past infringement has caused damage to FMC and any future sales of the Accused Products will result in significant additional damage.

87. Defendant's infringement has occurred with full knowledge of the '057 Patent, the '601 Patent, and the '260 Patent since at least November 3, 2023, and has been willful and deliberate since at least that time.

PRAYER FOR RELIEF

WHEREFORE, FMC respectfully requests the following relief:

1. A judgment that Defendant has infringed the Asserted Patents;
2. A judgment that Defendant's infringement of the Asserted Patents has been willful;
3. A permanent injunction restraining and enjoining Defendant, its officers, agents, employees, and those persons in active concert or participation with Defendant, from any further infringement of the Asserted Patents for the full terms thereof, including any extensions, pursuant to 35 U.S.C. § 283;
4. An Order instructing Defendant to permanently destroy:
 - i. Any and all remaining Accused Products;
 - ii. Any and all products created or derived from the Accused Products;
 - iii. Any and all scientific or regulatory data and analysis generated as a result of Defendant's use of the Accused Products or any product created or derived from the Accused Products; and

5. An Order requiring Defendant to withdraw all pesticide registration applications submitted to the EPA using data or information resulting from Defendant's use of the Accused Products, including any data ordered to be destroyed by the Court;

6. An Order instructing Defendant to file with this Court and serve upon FMC a report in writing and under oath setting forth in detail the manner and form in which Defendant has complied with any permanent injunction or Order resulting from this case within thirty (30) days after entry of such permanent injunction or Order;

7. A judgment that FMC be awarded all appropriate damages under 35 U.S.C. § 284 for Defendant's past infringement and any continuing or future infringement of the Asserted Patents, up until the date such judgment is entered, not less than a reasonable royalty for the use made of the Accused Products, including pre- and post-judgment interest, costs, and disbursements pursuant to 35 U.S.C. § 284;

8. A judgment that FMC be awarded enhanced damages for Defendant's infringement pursuant to 35 U.S.C. § 284;

9. A judgment that FMC be awarded supplemental monetary damages for any infringing acts after judgment and before entry of a permanent injunction;

10. A judgment declaring this case exceptional and that FMC be awarded its costs, expenses, and attorneys' fees that it incurs in prosecuting this action, pursuant to 35 U.S.C. § 285; and

11. A judgment or award of such other and further relief as this Court deems just and proper.

DEMAND FOR JURY TRIAL

FMC respectfully demands a jury trial on all claims and issues so triable.

Dated: February 12, 2024

Respectfully submitted,

By: /s/ Steve Eckley

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