

Analysis of the Complaint and Proposed Consent Order to Aid Public Comment Bayer AG and Aventis S.A., File No. 011 0199

I. Introduction

The Federal Trade Commission (“Commission”) has accepted, subject to final approval, an Agreement Containing Consent Orders (“Consent Agreement”) from Bayer AG (“Bayer”) and Aventis S.A. (“Aventis”) (collectively “Respondents”). The Consent Agreement is intended to resolve anticompetitive effects stemming from Bayer’s proposed acquisition of Aventis CropScience Holding S.A. (“ACS”) from Aventis. The Consent Agreement includes a proposed Decision and Order (the “Order”), which would require Respondents to divest ACS’s acetamiprid, fipronil and tribufos businesses, including its fipronil production facility in Elbeuf, France, and Bayer’s flucarbazone business, to an acquirer or acquirers approved by the Commission and in a manner approved by the Commission. The Consent Agreement also includes an Order to Hold Separate and Maintain Assets, which requires Respondents to preserve the acetamiprid, fipronil and flucarbazone operations as a viable, competitive and ongoing operation until the divestitures are completed.

The Consent Agreement, if finally accepted by the Commission, would settle charges that Bayer’s proposed acquisition of ACS may have substantially lessened competition in the markets for New Generation Chemical Insecticide Active Ingredients; New Generation Chemical Insecticide Products (including but not limited to (i) crop specific end uses, (ii) veterinary channel companion animal flea and tick control products and (iii) non-repellent liquid termiticides); Post-Emergent Grass Herbicides for Spring Wheat; and Cool Weather Cotton Defoliant. The Commission has reason to believe that Bayer’s proposed acquisition of ACS would have violated Section 7 of the Clayton Act and Section 5 of the Federal Trade Commission Act, as alleged in the Commission’s proposed complaint.

II. The Proposed Complaint

According to the Commission’s proposed complaint, there are several relevant lines of commerce in which to analyze the effects of Bayer’s proposed acquisition of ACS, including: 1) New Generation Chemical Insecticide Active Ingredients; 2) New Generation Chemical Insecticide Products; 3) Post-Emergent Grass Herbicides for Spring Wheat; and 4) Cool Weather Cotton Defoliant.

The proposed complaint alleges that the United States is the relevant geographic market and section of the country within which to analyze the likely effects the combination of Bayer and ACS.

A. New Generation Chemical Insecticide Active Ingredients

The proposed complaint alleges that relevant lines of commerce in which to analyze the effects of the proposed merger are new generation chemical insecticide active ingredients and related technologies (“New Generation Chemical Insecticide Active Ingredients”) for specific end use applications, including the development, manufacture and sale of insecticides for use as non-repellent termiticides, flea control for companion animals, and for use on an array of crop applications such as corn, cotton, citrus, cole crops, grapes, vegetables, for turf and ornamental uses, and as protection for seeds and seedlings (“seed treatments”). New Generation Chemical Insecticide Active Ingredients are chemicals that are designed to kill undesirable insects but that, unlike older insecticide active ingredients, are less harmful to human health and the environment. These New Generation Chemical Insecticide Active Ingredients include imidacloprid, acetamiprid, thiamethoxam, and other chloronicotinyls; and fipronil and other phenylpyrazoles.

According to the Commission’s proposed complaint, New Generation Chemical Insecticide Active Ingredients are used in applications where their characteristics provide superior performance and where they offer advantages as compared to older chemical insecticides. These advantages include reductions in the amount of chemical insecticides used (resulting in reduced negative impacts on the environment and human health), reduced risk to humans and beneficial insects due to the use of safer chemicals in comparison to older chemical insecticides, and superior control of certain undesirable pests. The proposed complaint alleges that many of these advantages are a result of competition in research and development. The proposed complaint also alleges that New Generation Chemical Insecticide Active Ingredients are of increasing importance as the EPA removes older insecticides from the market because of harmful effects on human health and the environment.

The proposed complaint alleges that Bayer and Aventis are the firms that have been significant competitors in developing and commercializing New Generation Chemical Insecticide Active Ingredients; Syngenta Corporation is the only other firm with significant development and production of New Chemical Insecticide Active Ingredients.

According to the Commission’s proposed complaint, Bayer and Aventis are distinguished by their unique product development and commercialization skills relating to New Generation Chemical Insecticide Active Ingredients. The proposed complaint alleges that these unique skills have prompted competitors, through licensing, to allow Bayer and Aventis to develop products based on molecules other firms have discovered.

The proposed complaint alleges that the acquisition would reduce actual, direct, and substantial competition, eliminate potential competition, increase barriers to entry, reduce innovation competition, increase Respondents’ ability to exercise unilateral market power and substantially increase the level of concentration and enhance the probability of coordination in the relevant markets.

B. New Generation Chemical Insecticide Products

The proposed complaint alleges that insecticide products based on New Generation Chemical Insecticide Active Ingredients (“New Generation Chemical Insecticide Products”) constitute relevant lines of commerce in which to analyze the effects of the proposed merger. New Generation Chemical Insecticide Products include, but are not limited to, (i) crop specific end uses, such as corn, cotton, citrus, cole crops, grapes, vegetables and seed treatments; (ii) veterinary channel companion animal flea control products; and (iii) non-repellent liquid termiticides.

The proposed complaint alleges that New Generation Chemical Insecticide Active Ingredients provide New Generation Chemical Insecticide Products with advantages over older chemical insecticide products. The proposed complaint alleges that New Generation Chemical Insecticide Products are displacing older insecticide products as the EPA removes or limits the use of a significant number of these older harmful products.

The proposed complaint alleges that New Generation Chemical Insecticide Products include separate relevant markets based on the specific applications in which the relevant products are used because the EPA requires a separate registration for each application in which the products will be used and suppliers price their products at different levels depending on the specific end use application. The proposed complaint further alleges that New Generation Chemical Insecticide Products may constitute application specific relevant product markets such as: termiticides, flea control for companion animals, specific crops or any application in which New Generation Chemical Insecticide Products are used.

According to the proposed complaint, Bayer and Aventis are the leading firms in the development and commercialization of New Generation Chemical Insecticide Products and own significant intellectual property estates relating to these products. The proposed complaint alleges that Syngenta is the only other firm with significant sales of New Generation Chemical Insecticide Products.

According to the Commission’s proposed complaint, the proposed transaction would reduce the number of firms – from two to one in two relevant markets, and from three to two in other relevant markets. The proposed complaint alleges that Bayer and Aventis are the only firms currently selling New Generation Chemical Insecticide Products for non-repellent liquid termiticides. The proposed complaint also alleges that Bayer and Aventis are the only firms that have developed and sold successful New Generation Chemical Insecticide Products for use in the veterinary channel companion animal flea control application. The proposed complaint further alleges that Bayer, Aventis and Syngenta are the only firms producing and selling a range of New Generation Chemical Insecticide Products for a range of crop specific end uses.

According to the proposed complaint, the acquisition would eliminate competition (including potential competition), increase barriers to entry, reduce innovation competition among developers of relevant products, increase Respondents’ ability to exercise unilateral market power and substantially

increase the level of concentration and enhance the probability of coordination in the relevant markets.

C. Post-Emergent Grass Herbicides for Spring Wheat

According to the proposed complaint, herbicides are chemicals designed to kill or control grasses that interfere with crop production. The proposed complaint alleges that separate markets for herbicides may be distinguished by the type of weed controlled (grassy weed versus broadleaf weed) and the growth stage at which the herbicide is applied (pre-emergent versus post-emergent). The proposed complaint further alleges that post-emergent grass herbicides for spring wheat (“Spring Wheat Herbicides”) is a relevant product market in which to analyze the effects of Bayer’s proposed acquisition of ACS.

According to the Commission’s proposed complaint, Aventis is the largest supplier of Spring Wheat Herbicides, accounting for almost 70 percent of sales in 2001. The proposed complaint alleges that Aventis’ leading product for post-emergent grass control for spring wheat is Puma, which contains the active ingredient fenoxaprop. The proposed complaint also alleges that in 2001, Bayer introduced Everest, which contains the active ingredient flucarbazone, and that Everest accounted for approximately 7 percent of sales in the market in that year.

The Complaint alleges that the acquisition would eliminate price competition, increase the Respondents’ ability to unilaterally raise price and increase the likelihood and degree of coordinated interaction among competitors in the market for Spring Wheat Herbicides.

D. Cool Weather Cotton Defoliant

According to the Commission’s proposed complaint, cotton defoliant is a chemical harvest aid designed to remove leaves from cotton plants without drying them. The proposed complaint alleges that separate markets for cotton defoliant may be distinguished by method of action (defoliation versus desiccation) and by product efficacy in varying environmental conditions (cool weather versus warm weather). The Commission’s proposed complaint further alleges that Cool Weather Cotton Defoliant is necessary for economical harvesting of premium grade cotton and constitutes a relevant product market in which to analyze the effects of the proposed acquisition.

The proposed complaint alleges that Bayer and Aventis are the only two suppliers of Cool Weather Cotton Defoliant. The proposed complaint also alleges that both Bayer and Aventis offer products containing the active ingredient tribufos for cool weather cotton defoliation; Bayer offers the DEF product and Aventis offers the Folex product.

The Commission’s proposed complaint alleges that Bayer’s proposed acquisition of ACS would eliminate competition between Bayer and Aventis in the market for Cool Weather Cotton

Defoliants in the U.S., substantially increase the level of concentration, increase the likelihood that Respondents will unilaterally exercise market power and increase barriers to entry. The proposed complaint also alleges that the proposed acquisition would increase the likelihood that customers of Cool Weather Cotton Defoliants in the U.S. would be forced to pay higher prices.

E. Barriers to Entry Into the Relevant Product Markets

The proposed complaint alleges that entry into the relevant markets for New Generation Chemical Insecticide Active Ingredients would require years of research, development, testing, registration and commercial scale production synthesis. The proposed complaint alleges that entry into the New Generation Chemical Insecticide Products market is an expensive and lengthy process that requires access to a New Generation Chemical Insecticide Active Ingredient, product development and EPA review, among other things. The proposed complaint further alleges that entry into the Spring Wheat Herbicides market can take seven to ten years, in part because a potential entrant would spend substantial time researching active molecules, developing promising molecules, and implementing the studies required by the EPA. The proposed complaint alleges that barriers to entry into the Cool Weather Cotton Defoliant market include distribution barriers, existing purchase and supply contracts and EPA regulations.

III. Terms of the Proposed Order

The proposed Order is designed to remedy the alleged anti-competitive effects of the proposed acquisition by requiring the divestiture of assets relating to four businesses: 1) acetamiprid; 2) fipronil; 3) flucarbazone; and 4) Folex (tribufos). The proposed Order requires Respondents to divest the acetamiprid, fipronil, and flucarbazone businesses to acquirer(s) approved by the Commission, at no minimum price, not later than 180 days from the date that the Commission accepts the proposed Order for public comment. If this divestiture does not occur by that date, the proposed Order allows the Commission to appoint a trustee to sell the divestiture assets or additional assets, to acquirer(s) approved by the Commission.

A. Acetamiprid

Section II. of the proposed Order requires Respondents to divest ACS's worldwide assets relating to the acetamiprid business. However, the proposed Order does not require Bayer to divest the acetamiprid business in Mexico, South America, Central America or Africa in the event that Nippon Soda, the acetamiprid licensor, does not consent to the assignment of the acetamiprid agreements relating exclusively to these regions.

Paragraph II.E. of the proposed Order permits the Commission-approved acquirer, at its discretion, to license back to Bayer any intellectual property that is not related primarily to the acetamiprid business. This provision ensures that the Order will not prevent Bayer from obtaining

exclusive rights to develop, make, sell or import any new insecticide products that are in the same chemical family as acetamiprid. Thus, both the acquirer and Bayer will have the right to invent, patent, and develop new compounds in the chemical family to which acetamiprid belongs.

The proposed Order also provides that if Bayer fails to divest its assets relating to the acetamiprid business within the time and manner described above, the Commission may appoint a divestiture trustee to divest those assets in a manner acceptable to the Commission, or may require divestiture of Bayer's assets relating to the thiacloprid business at no minimum price. The proposed Order provides that while Bayer may obtain a cross-license to any intellectual property included in the thiacloprid business (provided that Bayer's license does not impair the viability of the thiacloprid business), this provision creates an additional thiacloprid supplier to compete directly with Bayer. The proposed Order provides that if Bayer obtains this cross-license, Bayer can obtain a supply agreement of thiacloprid from the acquirer. Bayer may also obtain a supply of clothianidin from the acquirer because this chemical is produced in the same plant that produces thiacloprid. The Commission must approve all such supply agreements, licenses, and divestitures.

B. Fipronil

Section III. of the proposed Order requires Respondents to divest all assets relating to ACS's fipronil business, including intellectual property, ACS's production facility in Elbeuf, France, and other assets.

Paragraph III.D.2. of the proposed Order allows Bayer to license back any intellectual property included in the fipronil assets for non-agricultural use, as described in Definition RR. This license back increases competition in the non-repellant liquid termiticide market as it enables both Bayer and the fipronil acquirer to bring products containing fipronil to the market.

Paragraph III.E. of the proposed Order permits Bayer to enter into a supply agreement with the Commission-approved acquirer. The supply agreement allows the acquirer to supply fipronil to Bayer for non-agricultural use for a term of two years, which may be extended subject to Commission approval. This supply arrangement may be necessary because of current supply contracts that obligate ACS to supply fipronil to third parties. The supply agreement may also allow the acquirer to supply intermediates to Bayer until the expiration of patents covering such intermediates. This may be necessary because Bayer may require the use of those intermediates in the production of its own chemicals.

C. Flucarbazone

The proposed Order provides that Respondents will divest the flucarbazone assets, including tangible and intangible assets relating to the business of developing, manufacturing and selling all products containing the active ingredient flucarbazone worldwide. The divested assets exclude the

manufacturing facility in Kansas City where flucarbazone is manufactured. This

facility is also used to manufacture other Bayer herbicides that are not sold in the Spring Wheat Herbicide market.

So long as Bayer divests the Everest assets to a Commission-approved acquirer by the deadline described above, the proposed Order permits Bayer to exclusively retain its intellectual property rights that relate primarily to its Olympus (propoxycarbazone) business. Under the license grant in Paragraph IV.C. of the proposed Order, both the Commission-approved acquirer and Bayer will have the right to invent, patent, and develop new compounds in the chemical family to which Everest (flucarbazone) and Olympus (propoxycarbazone) belong.

In order to guarantee that Bayer will not block the Commission-approved acquirer from operating the Everest (flucarbazone) business, Paragraph IV.C.2. of the proposed Order prohibits Bayer from suing the acquirer for patent infringement relating to the acquirer's actions in developing, making, selling or importing any product containing flucarbazone, except for those products containing propoxycarbazone (i.e. Bayer's Olympus business).

Paragraph IV.E. of the proposed Order permits Bayer to supply the Commission-approved acquirer with flucarbazone products for an interim period of 30 months from the date Bayer divests the Everest (flucarbazone) business. This supply arrangement may be necessary because the acquirer is unlikely to have sufficient time to set-up an independent capability for manufacturing flucarbazone and formulating flucarbazone-based products in time for the 2003 spring wheat crop. The proposed Order sets up parameters for the supply relationship between Bayer and the acquirer, including requiring Bayer to supply the acquirer with sufficient quantities of flucarbazone in a timely manner and requiring Bayer to charge a reasonable price that is based on its direct costs of providing the acquirer with flucarbazone and other related services.

Finally, in the event Bayer does not divest its Everest (flucarbazone) business by the deadline described above, Sections X. and XII. of the proposed Order require Bayer to additionally divest its Olympus (propoxycarbazone) business, and the plant in Kansas City where it manufactures flucarbazone and propoxycarbazone, to a Commission-approved acquirer that may not license the business back to Bayer. Additionally, Paragraph XII.A.2. of the proposed order prohibits Bayer from suing the acquirer for patent infringement relating to the acquirer's actions in developing, making, selling or importing any product containing propoxycarbazone.

D. Folex

The provisions in Section V. of the proposed Order requires Respondent to divest assets relating to Folex, which contains the active ingredient tribufos, and to assign ACS's rights under the tribufos supply agreement to Amvac Corporation ("Amvac") no later than twenty days from the date the Commission accepts the Consent for public comment. Amvac is a manufacturer that purchases proprietary molecules from discovery firms and commercializes these molecules. Under the supply

agreement, Amvac may purchase tribufos from Bayer. Amvac also has the capability to manufacture its own tribufos.

If the Commission, at the time that it makes the Order final, notifies Bayer that it does not approve of the proposed divestiture to Amvac, or of the manner of the divestiture, the proposed Order provides that Bayer would terminate or rescind the sale to Amvac and divest the Folex business within 180 days, at no minimum price, to a Commission-approved acquirer.

E. Other Elements of the Order

According to the proposed Order, Bayer shall provide technical assistance to the acquirer(s) of the assets relating to the acetamiprid, fipronil, flucarbazon and Folex businesses upon their request. Because Respondents' employees have likely developed expertise in the manufacture of these chemicals and other operations of the businesses, this technical assistance provision ensures that the acquirer(s) can obtain the capability to operate the businesses as efficiently as Respondents.

Section VI. of the proposed Order contains various provisions which aid the Commission-approved acquirers in hiring Respondents' employees with experience in the divested businesses. Respondents must provide the acquirers with the names of these employees and access to personnel files and other documents relating to the employees' performance. Moreover, for a subset of employees considered to have a "key" role in the divested businesses, Respondents must pay such employees a bonus if they accept an employment offer from the acquirers within the first thirty days after the relevant divestiture.

The proposed Order also provides for the Commission to appoint a monitor trustee to oversee Bayer's compliance with the terms of the proposed Order and the divestiture agreements that Bayer enters pursuant to the proposed Order.

The proposed Order requires Respondents to provide the Commission, within sixty days from the date the Order becomes final, a verified written report setting forth in detail the manner and form in which the Respondents intend to comply, is complying, and has complied with the provisions relating to the proposed Order and the Order to Hold Separate and Maintain Assets. The proposed Order further requires Respondent to provide the Commission with a report of compliance with the Order every sixty days after the date when the Order becomes final until the divestitures have been completed.

According to the proposed Order, Bayer shall provide the Commission with advance written notice prior to acquiring any interest of or entering into a joint venture with Merial unless such transaction requires notification pursuant to Section 7A of the Clayton Act, 15 U.S.C. § 18a. Merial is a joint venture between Aventis S.A. and Merck. Prior to the proposed transaction, ACS supplied fipronil to Merial for use in its Frontline flea and tick control product. ACS also provided a crop

protection pipeline of new insecticide molecules that may have application in animal health. Following the proposed transaction, Merial may wish to reform the existing research and development agreement, or form a research and development technology venture with Bayer. Prior notification will allow the Commission to investigate whether such a partnership would have appropriate safeguards to obtain the benefits of joint development without negatively impacting competition in downstream animal health products.

F. The Order to Hold Separate and Maintain Assets

The proposed Order to Hold Separate and Maintain Assets that is also included in the Consent Agreement requires that Respondent hold separate and maintain the viability of the acetamiprid, fipronil, and flucarbazone businesses.

IV. Opportunity for Public Comment

The proposed Order has been placed on the public record for thirty days to receive comments from interested persons. Comments received during this period will become part of the public record. After thirty days, the Commission will review the Consent Agreement and comments received and will decide whether to withdraw its agreement or make final the Consent Agreement's proposed Order and Order to Hold Separate and Maintain Assets.

The purpose of this analysis is to facilitate public comment on the proposed Order. This analysis is not intend to constitute an official interpretation of the Consent Agreement, the proposed Order, or the Order to Hold Separate and Maintain Asset or in any way to modify the terms of the Consent Agreement, the proposed Order, or the Order to Hold Separate and Maintain Assets.