

**ANALYSIS OF AGREEMENT CONTAINING CONSENT ORDERS  
TO AID PUBLIC COMMENT**

*In the Matter of China National Chemical Corporation, a corporation; ADAMA Agricultural Solutions Ltd., a corporation; and Makhteshim Agan of North America, Inc., doing business as ADAMA, a corporation, File No. 161 0093, Docket No. C-4610*

**I. Introduction**

The Federal Trade Commission (“Commission”) has accepted from China National Chemical Corporation (“ChemChina”), subject to final approval, an Agreement Containing Consent Orders (“Consent Agreement”). The Consent Agreement, which contains a proposed Decision and Order (“Order”) and Order to Maintain Assets, is designed to remedy the anticompetitive effects resulting from ChemChina’s proposed acquisition of Syngenta AG (“Syngenta”).

Pursuant to an agreement signed on February 2, 2016 (the “Agreement”), ChemChina, through an indirect subsidiary, will submit a public tender offer for all publicly registered shares and American Depository Shares of Syngenta at an offer price of \$465 per share, for total consideration of up to \$43 billion in cash (the “Acquisition”). The proposed Acquisition would result in highly concentrated markets and raise significant competitive concerns in the markets for the herbicide paraquat, the insecticide abamectin, and the fungicide chlorothalonil in the United States. The Commission’s Complaint alleges that the proposed Acquisition, if consummated, would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended 15 U.S.C. § 45, by lessening competition in the markets for formulated crop protection products based on paraquat, abamectin, and chlorothalonil in the United States.

The Consent Agreement remedies the alleged violation by replacing the competition in the three relevant markets that would be lost as a result of the proposed Acquisition. Under the terms of the Consent Agreement, ChemChina subsidiary ADAMA will divest its paraquat, abamectin, and chlorothalonil crop protection businesses in the United States to American Vanguard Corporation and its affiliate Amvac Chemical Corporation (collectively “AMVAC”).

The Consent Agreement and proposed Order have been placed on the public record for 30 days to solicit comments from interested persons. Comments received during this period will become part of the public record. After 30 days, the Commission will review the Consent Agreement and the comments received, and decide whether it should withdraw, modify, or make final the Consent Agreement and proposed Order.

**II. The Parties**

ChemChina is a Chinese state-owned entity and is a diversified chemical company headquartered in Haidian District Beijing, China. ChemChina owns an Israel-based crop protection company, ADAMA. This wholly-owned subsidiary produces and/or sells formulated crop protection products based on paraquat, abamectin, and chlorothalonil.

Headquartered in Basel, Switzerland, Syngenta is a large research-based global agriculture company that manufactures and sells numerous crop protection products including paraquat, abamectin, and chlorothalonil.

### **III. Crop Protection Formulations**

The relevant lines of commerce in which to analyze the effects of the proposed Acquisition are crop protection formulations based on the active ingredients paraquat, abamectin, and chlorothalonil. Crop protection formulations are used to protect crops from pests. These formulations are based on key active ingredients, which are diluted from a concentrated technical grade. Crop protection chemicals fall into three broad categories: 1) herbicides, which control for weeds and other vegetation; 2) fungicides, which control fungus; and 3) insecticides, which control insects. Of the relevant lines of commerce, paraquat is a herbicide, abamectin is an insecticide, and chlorothalonil is a fungicide.

Paraquat is non-selective “burndown” herbicide, which means it does not discriminate between weeds and crops. It is used to clear fields prior to the growing season. The use of paraquat has increased in recent years due to the resistance issues faced by glyphosate caused by its overuse. Other paraquat alternatives that do not have glyphosate’s resistance issues are significantly more expensive than paraquat.

Abamectin is an insecticide used to kill mites, psyllid, and leafminers. It is used primarily in citrus and tree nut crops. Other alternative miticides are either significantly more expensive than abamectin because they are still on patent, or are less effective than abamectin. Due to resistance issues faced by insecticides, it is typical for a grower to spray five to six different types of miticides per season. Abamectin generally appears in any insecticide rotation because it is inexpensive and highly effective.

Chlorothalonil is a broad spectrum fungicide used primarily to protect peanuts and potatoes. Chlorothalonil is particularly effective because it operates with four modes of action and is critical to growers for resistance management. Syngenta recommends that growers rotate or mix chlorothalonil with systemic fungicides to prevent or slow development of resistance to single-site mode of action fungicides.

The relevant geographic area in which to analyze the effects of the Acquisition on the formulated crop protection markets is the United States. The Environmental Protection Agency requires that manufacturers register both the technical active ingredient and the formulated products for sales in the United States under the Federal Insecticide, Fungicide, and Rodenticide Act. This registration requirement limits market access to a set of products that meet U.S. regulatory requirements.

Each of the products at issue were either developed or acquired by a Syngenta predecessor company, meaning that Syngenta offers the branded version of the product and has significant market shares in each. ADAMA is either the first or second largest generic supplier for each of these products. For paraquat, ADAMA is currently the second largest supplier behind Syngenta and another generic supplier. Post-Acquisition, the combined share of the two

firms would be over 60%. ADAMA is the generic market leader for abamectin and has been for some time. Post-Acquisition, the combined share of the two firms would be close to 80%. Finally, ADAMA is the second largest generic supplier of chlorothalonil and post-Acquisition the combined share of the two firms would be over 40%. There are a number of other generic providers of crop protection products generally, as well as other generic providers of paraquat, abamectin, and chlorothalonil. However, they have been largely unable to gain sufficient share to rival the scale and market position ADAMA holds in the markets for these three products.

The proposed Acquisition removes significant competition between Syngenta and ADAMA. Though branded and generic companies employ different business models, the available evidence shows meaningful competition between the merging parties. Syngenta, for example, has lowered the price of its crop protection products in response to competitive pressure from ADAMA.

Entry will not be sufficient to deter or counteract the anticompetitive effects of the proposed Acquisition. While generic entry may be likely and occur in a timely manner, it is unlikely to be sufficient to replace the competitive significance and scale of ADAMA. Typically, new entrants forecast and ultimately achieve minimal market penetration while ADAMA, in contrast, has successfully maintained significantly higher market shares for an extended period of time. ADAMA has been a more robust competitor for the products at issue through economies of scale and more favorable supply agreements.

#### **IV. The Consent Agreement**

The Consent Agreement eliminates the competitive concerns raised by ChemChina's proposed acquisition of Syngenta by requiring ChemChina to sell ADAMA's U.S. paraquat, abamectin, and chlorothalonil crop protection businesses. The Consent Agreement requires ChemChina to sell the relevant business assets to AMVAC, or another acquirer approved by the Commission through a purchase agreement approved by the Commission.

AMVAC is well positioned to replace the competition that will be eliminated as a result of the proposed Acquisition. It has the industry experience, reputation, and resources to replace ADAMA as an effective competitor in the U.S. markets for formulated crop protection products based on paraquat, abamectin, and chlorothalonil. The company is headquartered in Newport Beach, California, and has four separate manufacturing facilities within the U.S. AMVAC is an experienced player in the agrochemical segments in which ADAMA and Syngenta operate, and sells to the same customer base. AMVAC currently manufactures and formulates a large number of crop protection chemicals including herbicides, insecticides, and fungicides. The products to be divested will complement its current product lines. Finally, due to its wide spectrum of crop protection products, AMVAC is well placed to develop, register, and market new combination products, further improving scale in both crop protection and turf and ornamental applications.

Pursuant to the Consent Agreement, AMVAC (or another approved acquirer) would acquire all of the assets and other such rights necessary to be an effective competitor for paraquat-, abamectin-, and chlorothalonil-based crop protection formulations. This will include

the U.S. product registrations and registration data packages for both the formulated products and the technical active ingredients, all intellectual property rights associated with the products including confidential statements of formulation, and inventories. The divestiture also will include a cost-competitive transitional supply agreement for the supply of paraquat with Sanonda, ADAMA's low cost paraquat supplier, which is majority-owned by ChemChina, and a transitional services agreement with ADAMA. In addition, the Consent Agreement requires the removal of crop protection products containing any one of the three active ingredients from Syngenta's loyalty program for three years. This nurturing provision is to help ensure that AMVAC (or any approved acquirer) can step into the shoes of ADAMA and ultimately retain its competitiveness and scale.

The purpose of this analysis is to facilitate public comment on the Consent Agreement. It is not intended to constitute an official interpretation of the proposed Order or to modify its terms in any way.