

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

*In the Matter of Tronox Limited, National Industrialization Company (TASNEE), National Titanium Dioxide Company Limited (Cristal), and Cristal USA Inc.  
Docket No. 9377*

**1. INTRODUCTION**

The Federal Trade Commission (“Commission”) has accepted, subject to final approval, an Agreement Containing Consent Orders (“Consent Agreement”) with Tronox Limited (“Tronox”), National Industrialization Company (“TASNEE”), National Titanium Dioxide Company Limited (“Cristal”), and Cristal USA Inc. The purpose of the Consent Agreement is to remedy the anticompetitive effects that would result from Tronox’s proposed acquisition of Cristal’s titanium dioxide (“TiO<sub>2</sub>”) business.

On February 21, 2017, Tronox announced that it had entered into a definitive agreement to acquire all of Cristal’s TiO<sub>2</sub> business for \$1.67 billion and a 24 percent stake in the combined entity (“Acquisition”). The proposed Acquisition would combine two of the three largest producers of TiO<sub>2</sub> manufactured through the chloride process (“chloride TiO<sub>2</sub>”) in the United States and Canada (“North America”). On December 5, 2017, the Commission issued an administrative Complaint challenging the proposed Acquisition and authorized staff to seek, if necessary, a preliminary injunction in federal district court. The Commission’s Complaint alleged 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 FTC Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in the market for the sale of chloride TiO<sub>2</sub> to North American customers (“North American chloride TiO<sub>2</sub> market”). After extensive pre-trial discovery, the administrative trial before the Administrative Law Judge (“ALJ”) began on May 18, 2018 and was conducted over sixteen hearing days until June 22, 2018.

In July 2018, because Tronox could have closed the transaction before the ALJ could issue a decision, however, the Commission filed a federal complaint in the U.S. District Court for the District of Columbia to seek a preliminary injunction. After a three-day hearing at the federal district court, Judge Trevor N. McFadden ruled for the Commission and issued an opinion and order granting the motion for a preliminary injunction on September 12, 2018. In his opinion, Judge McFadden found that the Commission established a strong presumption of anticompetitive effects in the market for chloride TiO<sub>2</sub> in North America and that the parties’ rebuttal evidence did not overcome the presumption. After the completion of the federal court action, the ALJ issued an Initial Decision on December 7, 2018. Like the decision in the federal court, the ALJ found that the Acquisition may substantially lessen competition in the relevant market in violation of Section 7 of the Clayton Act and Section 5 of the FTC Act. The parties thereafter engaged with Commission staff in settlement discussions to resolve the Commission’s concerns relating to lost competition in the North American chloride TiO<sub>2</sub> market.

To remedy the anticompetitive effects that would result from the proposed Acquisition in the North American chloride TiO<sub>2</sub> market, the proposed Decision and Order (“Order”) contained

in the Consent Agreement requires Tronox to divest Cristal's North American TiO<sub>2</sub> business to INEOS Enterprises ("Ineos") no later than 30 days from the close of the Acquisition. The divestiture package includes all of Cristal's North American TiO<sub>2</sub> production assets, including two chloride TiO<sub>2</sub> manufacturing plants located in Ashtabula, Ohio, a research, development, and administrative support facility near Baltimore, Maryland, necessary intellectual property associated with the manufacture and sale of chloride TiO<sub>2</sub> in and from North America, an option to acquire rights to use the licensed intellectual property to produce chloride TiO<sub>2</sub> products at a new manufacturing facility outside North America, customer contracts in North America with respect to chloride TiO<sub>2</sub>, the ability to hire all Cristal personnel necessary to operate the business, and access to various transitional services. In short, the Consent Agreement provides Ineos with everything it needs to compete effectively in the North American chloride TiO<sub>2</sub> market, along with the ability to produce globally in the future if the business opportunity arises.

The Commission has placed the Consent Agreement 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 again review the Consent Agreement and the comments received, and decide whether it should withdraw from the Consent Agreement, modify it, or make the Order final.

## **2. THE PARTIES**

Tronox, a publicly traded company headquartered in Stamford, Connecticut, is one of the top three manufacturers of chloride TiO<sub>2</sub> in North America. Tronox operates one TiO<sub>2</sub> pigment manufacturing plant in Hamilton, Mississippi, and two other plants in Botlek, the Netherlands, and Kwinana, Australia. Tronox's three plants produce chloride TiO<sub>2</sub> exclusively.

Cristal, headquartered in Jeddah, Saudi Arabia, is a corporation majority-owned by National Industrialization Company ("TASNEE"), a limited company, headquartered in Riyadh, Saudi Arabia. Cristal's primary U.S. subsidiary is Cristal USA Inc., a corporation with its executive offices and principal place of business located in Glen Burnie, Maryland. Cristal, through various subsidiaries, owns and operates chloride TiO<sub>2</sub> manufacturing plants in Ashtabula, Ohio, the United Kingdom, Australia, and Saudi Arabia. Cristal also produces sulfate TiO<sub>2</sub> at plants in Brazil, China, and France. All of Cristal's TiO<sub>2</sub> production in North America is chloride TiO<sub>2</sub>.

## **3. THE RELEVANT MARKET FOR CHLORIDE TIO<sub>2</sub> IN NORTH AMERICA**

The relevant product market in which to assess the competitive effects of the proposed Acquisition is chloride TiO<sub>2</sub>. TiO<sub>2</sub> is a white pigment used to provide opacity, whiteness, and brightness to a vast array of products, including paint, industrial coatings, plastics, paper, and other products. Chloride TiO<sub>2</sub> has distinct, superior characteristics that cannot be provided by any other type of TiO<sub>2</sub>, including sulfate TiO<sub>2</sub>. Most North American customers would not substitute sulfate TiO<sub>2</sub> for chloride TiO<sub>2</sub> in response to a small but significant increase in price.

The relevant geographic market is North America, defined as the United States and Canada. The North American market has competitive dynamics, including pricing and demand

characteristics, that differ from other geographic regions and limit the ability of North American customers to engage in arbitrage across different geographic regions. Import duties, shipping and handling costs, and other logistical challenges would render such efforts uneconomical and impractical.

The market for chloride TiO<sub>2</sub> in North America is characterized by a limited number of suppliers. Tronox and Cristal are two of the three largest producers of chloride TiO<sub>2</sub> in North America and together with The Chemours Company, the top three TiO<sub>2</sub> companies control the vast majority of chloride TiO<sub>2</sub> sales to North American customers and more than 80 percent of overall North American chloride TiO<sub>2</sub> manufacturing capacity.

The proposed Acquisition would cause the already concentrated North American chloride TiO<sub>2</sub> market to become even more concentrated, increasing the Herfindahl-Hirschman Index (“HHI”) by more than 700, resulting in a post-Acquisition HHI exceeding 3,000. This increase in concentration far exceeds the thresholds set out in the *Horizontal Merger Guidelines* for raising a presumption that the Acquisition would create or enhance market power.

#### **4. EFFECTS OF THE ACQUISITION**

As both the federal and administrative courts have already determined, absent a divestiture, the proposed Acquisition is likely to cause competitive harm in the North American chloride TiO<sub>2</sub> market. As stated in the Decision, for the sole purpose of settling this matter, Tronox and Cristal do not dispute that the likely effect of the proposed Acquisition, if consummated without a divestiture, may be substantially to lessen competition in the North American chloride TiO<sub>2</sub> market. Tronox and Cristal are two of the three largest producers of chloride TiO<sub>2</sub> in North America. The proposed Acquisition would have anticompetitive effects in two ways: (1) increasing the likelihood of anticompetitive coordination among the North American chloride TiO<sub>2</sub> companies; and (2) increasing Tronox’s incentive and ability to unilaterally curtail production of chloride TiO<sub>2</sub> in North America, which would lead to higher prices for chloride TiO<sub>2</sub> in North America.

#### **5. ENTRY**

Entry into the North American chloride TiO<sub>2</sub> market is neither likely nor timely to deter or counteract any anticompetitive effects of the proposed Acquisition. The chloride TiO<sub>2</sub> market is characterized by substantial barriers to entry. Market participants confirmed that building a new TiO<sub>2</sub> plant would take multiple years and a large capital investment. Moreover, chloride plants rely on closely held proprietary technology. Expansion or repositioning by the remaining firms that would defeat anticompetitive effects is also unlikely in the already mature North American chloride TiO<sub>2</sub> market.

#### **6. THE PROPOSED CONSENT AGREEMENT**

The proposed Consent Agreement restores the competition that would have been lost from the proposed Acquisition by requiring Tronox to divest Cristal’s North American TiO<sub>2</sub> business to Ineos, a multinational corporation comprised of chemical manufacturing businesses.

The proposed divestiture package provides everything needed for Ineos to compete effectively in the North American chloride TiO<sub>2</sub> market.

Under the Order, Tronox is required to divest Cristal's North American TiO<sub>2</sub> business to Ineos no later than 30 days from the close of the Acquisition. The divestiture package consists of the following: two chloride TiO<sub>2</sub> manufacturing plants and all related facilities in Ashtabula, Ohio; other physical assets in North America, such as a research and development, and administrative support facility near Baltimore ("Baltimore Administration and Technical Center" or "BATC") and research and development equipment located at BATC; the ability to hire the relevant Cristal personnel located in North America, including all employees at the Ashtabula complex and almost all of the support personnel located at BATC; transfer or license of all intellectual property right necessary to manufacture chloride TiO<sub>2</sub> products at Ashtabula; an option, exercisable by Ineos during a ten-year period after closing, to acquire rights to use the licensed intellectual property to produce chloride TiO<sub>2</sub> products at a new manufacturing facility outside North America; and customer contracts related to Cristal's chloride TiO<sub>2</sub> sales in North America. The Order also provides that, during a discrete period, the Commission has a limited ability to modify the lists of excluded assets and retained employees if needed for Ineos to run the business effectively.

The Order requires that, at the request of Ineos, Tronox must provide transition assistance for a period of at least two years, and imposes other terms designed to ensure the viability of the divested business. The Commission also requires the parties to maintain all of the assets in the ordinary course of business pending divestiture to Ineos, and is issuing a separate Order to Maintain Assets at the time it accepts the Consent Agreement for public comment.

A Monitor will oversee Tronox's compliance with the obligations set forth in the Order, the Order to Maintain Assets, and the divestiture agreements. If Tronox does not fully comply with the divestiture requirements of the Order, the Commission may appoint a Divestiture Trustee to divest Cristal's North American TiO<sub>2</sub> business and perform Tronox's other obligations consistent with the Order.

The purpose of this analysis is to facilitate public comment on the Consent Agreement to aid the Commission in determining whether it should make the Consent Agreement final. This analysis is not an official interpretation of the proposed Consent Agreement and does not modify its terms in any way.