

FD&C colorants are dyes and pigments that have been certified or provisionally certified by the Food and Drug Administration (FDA) for use in food items, drugs, and/or cosmetics. The International Association of Color Manufacturers (IACM) represents certain FD&C colorant manufacturing facilities. Typically, FD&C colorants are azo, anthraquinone, or triarylmethane dyes with azo representing the largest category. These products are similar or identical to larger-volume dye products not used in food, drugs, and cosmetics.

The dyes and/or pigments industries typically operate successive batch processes producing varying dyes and/or pigments products. These batch operations generate a wide variety of solid wastes periodically. Wastes are often commingled from multiple processes prior to management, and include secondary wastes generated from the treatment of commingled waste (e.g., facilities commingle wastewaters prior to managing them in tanks or impoundments, and generate commingled wastewater treatment sludges). Some wastes may also be process-specific wastes that are generated from a specific process and may be managed independently of other wastes (e.g., spent filter aids).^{16, 17}

For more detailed information, see the Listing Background Document available in the public docket for today's proposed rule.

H. What Publicly Available Information Did EPA Collect and Use?

In light of the constraints imposed by the *Magruder* injunction on survey and analytical data with unresolved CBI claims, we identified a variety of publicly available sources of information for today's listing determinations. We used these data (as described elsewhere in this proposal and in the docket materials available in the public docket for today's proposal) for several purposes: (1) To support a general assessment of the dyes and/or pigments industries' waste generation and management practices; (2) to develop a list of potential constituents of concern; (3) to identify plausible waste management scenarios that are the basis for our risk assessment and listing determination; and (4) to project

potential impacts associated with the proposal.

The more important data sources we used include the following:

- Non-CBI RCRA § 3007 questionnaire information and data, collected during the 1992 Agency survey of wastes generated in the dyes and/or pigments industries, and supplemented, corrected, and updated (for the year 1997) by the surveyed facilities. Surveys submitted by the twelve plaintiffs in *Magruder* remain unavailable. The available surveys are (1) surveys submitted by non-plaintiffs who made no CBI claims; (2) surveys submitted by non-plaintiffs who made CBI claims, but later withdrew them; and (3) surveys submitted by non-plaintiffs who made CBI claims, which EPA denied under the procedures set out in 40 CFR part 2.
- EPA's analytical data from sampling and analysis of the wastes of concern, developed in the early 1990s and used to support the 1994 and 1999 proposed listing determinations, as masked and aggregated per Table 1 of the June 2003 settlement agreement with the *Magruder* plaintiffs.
- Split sample analytical data submitted by the Color Pigments Manufacturing Association (CPMA), in a letter dated April 20, 1994 from J. Lawrence Robinson of CPMA to Ed Abrams of EPA.
- The Toxics Release Inventory (TRI) for Reporting Year 2000.
- The European Union (EU)'s directive for a community ban on azocolourants (76/769/EEC, Annex I, point 43), relating to restrictions on the marketing and use of certain dangerous substances and preparations (azocolourants).
- Public comments without CBI claims submitted on the 1994 and 1999 proposed listing determinations.
- Colour Index 2.0, Intermediates Database, Third Edition, July 1999.
- Kirk-Othmer Encyclopedia of Chemical Technology, Fourth Edition, 2001.
- The Stanford Research Institute (SRI)'s 2000 Directory of Chemical Producers.
- Information provided by trade associations (CPMA and ETAD) in 2002–2003 regarding the status of dye, pigment and FD&C facilities potentially generating the wastes of concern.
- Information provided by trade associations (CPMA and ETAD) in 2002–2003 regarding onsite waste management units for dyes and/or pigments manufacturers potentially generating the wastes of concern.

—Dyes and/or pigments manufacturers' websites.

III. Approach Used in This Proposed Listing

A. Summary of Today's Action

In hazardous waste listings promulgated by EPA, we typically describe the scope of the listing in terms of the waste material and the industry or process generating the waste. However, in today's rule, we are proposing to use a newly developed "mass loadings-based" approach for listing dyes and/or pigments production wastes. In a mass loadings-based listing, a waste would be hazardous once a determination is made that it contains any of the constituents of concern at or above specified mass-based levels of concern.

In this proposed rule, we identify constituents of concern likely to be present in nonwastewaters which may pose a risk above specified mass loading levels. Using risk assessment tools developed to support our hazardous waste identification program, we assessed the potential risks associated with the constituents of concern in plausible waste management scenarios. From this analysis, we developed "listing loading limits" for each of the constituents of concern.

If you generate any dyes and/or pigments production nonwastewaters addressed by this proposed rule, you would be required either to determine whether or not your waste is hazardous or assume that it is hazardous as generated under today's proposed K181 listing. (Note, we are proposing that if wastes are otherwise hazardous due to an existing listing in §§ 261.31–33 or the hazardous waste characteristics in §§ 261.21–24, the listing under K181 would not apply.) We are proposing a three-step determination process. The first step is a categorical determination where you would determine whether your waste falls within the categories of wastes covered by the listing (e.g., nonwastewaters generated from the production of dyes and/or pigments that fall within the product classes of azo, triarylmethane, perylene or anthraquinone) and whether any of the regulated constituents could be in your waste. If you determine under this first step that your waste meets the categorical description of K181 and that your waste may contain any K181 constituent, you would then in the second step determine whether your waste meets the numerical standards for K181 (e.g., compare the mass loading of the regulated constituents in your waste to the numerical standards). Your waste

¹⁶ "Dyes and Dye Intermediates." Kirk-Othmer Encyclopedia of Chemical Technology, Fourth Edition. Volume 8. New York: John Wiley & Sons, Inc. 1993.

¹⁷ "Pollution Prevention Guidance Manual for the Dye Manufacturing Industry." U.S. Environmental Protection Agency and the Ecological and Toxicological Association of the Dyestuffs Manufacturing Industry. 1990.