



United States  
Environmental Protection  
Agency

February 2005  
EPA530-F-05-004  
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## Waste from the Production Of Dyes and Pigments Listed as Hazardous

*By listing certain waste from the dyes and pigments industry as hazardous, the Environmental Protection Agency (EPA) is improving ground-water protection and safeguarding human health. To balance environmental protection with regulatory flexibility, the Agency is using a risk-based approach that focuses on total quantities of key chemicals in a waste in each calendar year.*

### Action

Waste from the production of certain dyes, pigments, and food, drug, and cosmetic colorants (FD&C) are being listed as EPA hazardous waste K181. While listed hazardous waste must be strictly managed under Subtitle C of the Resources Conservation and Recovery Act (RCRA), EPA is using a flexible regulatory approach that focuses on total quantities of chemical constituents of concern in a waste that present the greatest risk. The K181 listing focuses on seven hazardous constituents: aniline, o-anisidine, 4-chloroaniline, p-cresidine, 1,2-phenylenediamine, 1,3-phenylenediamine, and 2,4-dimethylaniline. These constituents serve as the basis for classifying the waste as hazardous.

Waste that contains less than the specified threshold levels of constituents of concern are not hazardous (e.g., aniline levels below 9,300 kg/yr). Moreover, regulatory exemptions are provided for waste either sent for disposal in landfills that meet specific design standards or treated in an approved combustion unit. Waste that does not qualify for these exemptions and that meets or exceeds the specified thresholds for any of the specific constituents of concern must be managed as listed hazardous waste K181.

The waste results from the preparation and processing of dyes and/or pigments that occur on site at manufacturing facilities. Examples of wastes covered by the listing include wastewater treatment sludges, equipment cleaning sludges, filter cakes, dust collector fines, and still bottoms. Waste that is not generated at a dye or pigment manufacturing site, such as waste from the offsite use, formulation, and packaging of dyes or pigments is not regulated.

This listing potentially affects waste from the production of azo, triarylmethane, and anthraquinone dye and pigment product classes. These dye and pigment classes are commonly used for coloring textiles, paper, plastics, leather, inks, paints/coatings, food, drugs, and cosmetics. As many as 36 facilities nationwide generate and manage organic dye or

pigment production waste that may be potentially affected by this regulation. EPA estimates these facilities annually generate about 36,000 metric tons of potentially affected waste. This regulation is effective 180 days following publication in the Federal Register.

This rule also establishes treatment standards for disposal of these wastes and designates them hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund).

## **Background**

RCRA, as amended in 1984, required EPA to make hazardous waste listing determinations for several specified categories of wastes that included dye and pigment waste. In 1989, the Environmental Defense Fund (now called Environmental Defense) filed a lawsuit against EPA to enforce EPA's legal deadlines for listing hazardous waste. To resolve most of the issues in the case, Environmental Defense and EPA entered into a consent decree, which has been amended several times to revise deadlines for final EPA action.

The Agency proposed listings for dye and pigment production waste in 1994 and 1999, but was unable to take final action because of restrictions on the use of proprietary business information involved in the regulation. Subsequently, EPA developed and proposed a new approach—which is used in this regulation—that does not depend on the data in the previous proposals (68 FR 66164). This regulation satisfies EPA's obligation under the ED consent decree to promulgate final listing determinations for the specified waste from the production of organic dyes and pigments.

## **For More Information**

Please visit us on the Internet at <<http://www.epa.gov/epaoswer/hazwaste/id/dyes/index.htm>>.