
Office of Solid Waste



Environmental Fact Sheet

THREE INORGANIC CHEMICALS NOW LISTED AS HAZARDOUS WASTE

EPA adds three new waste from inorganic chemical manufacturing processes to the list of hazardous waste. Regulating these chemical waste will protect human health and the environment by eliminating potential pathways of exposure.

Background

The Resource Conservation and Recovery Act (RCRA) requires EPA to determine if waste is hazardous. EPA identifies waste in two ways. A waste may be hazardous if it exhibits certain properties (called "characteristics") that pose threats to human health and the environment, or if it is included on a specific list of waste EPA evaluated. EPA lists a waste as hazardous when it poses unacceptable risks to the environment or people.

EPA conducted extensive investigations of waste from the inorganic chemical manufacturing industry. We reviewed specific sectors within the industry, including: antimony oxide, barium carbonate, boric acid, cadmium pigments, inorganic hydrogen cyanide, phenyl mercuric acetate, phosphoric acid from the dry process, phosphorous pentasulfide, phosphorous trichloride, potassium dichromate, sodium chlorate, sodium dichromate, sodium phosphate from wet process phosphoric acid, and titanium dioxide. After making detailed assessments of the waste streams from these sectors, EPA proposed to list three of them as hazardous waste in September 2000. EPA also proposed to add manganese to Appendix VIII and to the table of Universal Treatment Standards at 40 CFR 268.48.

EPA received extensive comments on the proposed rulemaking. After considering the comments, EPA is making the hazardous waste listing final with modification to the K178 listing.

Action

EPA Administrator Christie Whitman signed the final rule to add three new wastes to the K-coded list of hazardous waste regulated under RCRA (40 CFR 261.32). K-code wastes come from specialized manufacturing processes, such as those found in the inorganic chemical manufacturing industry.

The three wastes are:

- K176 ! Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide), (E)
- K177 ! Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide), (T),
- K178 ! Solids from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process. (T).

The rule also includes the final “no list” determinations made for the remaining 171 wastestreams evaluated for the rule.

As part of the rule, EPA is adding the following constituents to Appendix VII of 40 CFR 261 because these constituents serve as the basis for new listings and can pose hazards to human health and the environment: arsenic and lead (K176), antimony (K177), and manganese and thallium (K178). The final rule also adds manganese to the list of hazardous constituents in Appendix VIII of 40 CFR Part 261, based on scientific studies demonstrating that manganese has toxic effects on humans. (The remaining constituents already are listed in Appendix VIII.)

In the rulemaking, EPA deferred adding manganese to the table of Universal Treatment Standards at 40 CFR 268.48. Finally, EPA is adding manganese to the list of constituents for F039, but the Agency limits the scope of the addition to only those multiscore leachates that contain leachate derived from K178 wastes (268.40)

Two of the newly listed wastes (K176 and K177) are issued under the Hazardous and Solid Waste Amendments (HSWA) to RCRA. This means that the federal government will implement the regulations until the states are authorized for the new listings. The effective date for the HSWA listings is six months after the date of publication. The remaining newly listed waste (K178) is being issued under a non-HSWA provision of RCRA. Therefore, the K178 will become effective on a state-by-state basis as states adopt and are authorized for the K178 listing.

For More Information

The Federal Register notice, this fact sheet, and related documents are available on the Internet at <http://www.epa.gov/epaoswer/hazwaste/id/inorchem/fi2001.htm>. For additional information, or to order paper copies of any documents, call the RCRA Call Center. Callers within the Washington Metropolitan Area please dial 703-412-9810 or TDD 703-412-3323 (hearing impaired). Long-distance callers please call 1-800-424-9346 or TDD 1-800-553-7672. The RCRA Call Center operates weekdays, 9:00 a.m. to 5:00 p.m. Address written requests to: RCRA-Docket@epa.gov or RCRA Information Center (5305W), 1200 Pennsylvania Avenue, NW, Washington, DC 20460-0001.