

Lead-Based Paint Activities



Handling and disposal

Federal regulations mandate that solid waste generators determine if their waste streams should be classified as “hazardous wastes.” Wastes deemed hazardous must be properly stored, treated and disposed in accordance with the Federal Resource Conservation and Recovery Act (RCRA). One of the characteristics that define a hazardous waste is the amount of certain toxic components (e.g. metals like lead) that can leach from the waste. The RCRA defines the analytical method to be used to evaluate the waste and also stipulates the allowable limits for a component (e.g., lead) to leach.

The table on page 2 describes various types of debris that are commonly contaminated with paint containing lead. It assumes paint containing lead has been previously identified (either through direct laboratory analysis, or historic knowledge, as lead based paint (LBP). LBP was banned from residential use in 1978. If no information is available regarding the existence of lead in the painted surfaces, screening is recommended to provide information for worker protection.

A suggested waste characterization code is provided in the table: HW = hazardous waste and SW = non-hazardous solid waste. These waste characterizations are provided as a tool to assess your waste stream and determine when analyses may be warranted or when enough information is available to characterize your waste based on “generator knowledge.”

Note: This information



is based on general industry-based findings and these are general guidelines only. There may be exceptions to the waste characterizations listed based on your specific waste, type of paint, concentration of lead in the paint, and type of matrix.

Also Important:

- The EPA administers the hazardous waste program for Iowa. The regulatory limit for lead is 5.0 mg/L, (TCLP)
- The wastes could be hazardous for other metals such as cadmium (1.0 mg/L), barium (100 mg/L), chromium (5.0 mg/L) etc. It is the waste generators responsibility to make a full waste determination.
- The EPA considers waste generated as part of LBP activities conducted at residences to be household waste. Residences are defined as single family homes, apartment buildings public housing and military barracks. This is for disposal purposes only and does not coincide with lead-safe work practices as stated in the table. Under 40 CFR 261.4(b)(1), household wastes are excluded from the hazardous waste requirements.
- Contact the Iowa Department of Public Health for information regarding renovating homes or child-occupied facilities built before 1978 and the lead-safe renovator regulations and certification course at 800-972-2026.
- Keep in mind that when waste is deemed SW (non-hazardous), some limited sampling and TCLP analysis for lead may be warranted for liability concerns.



<p>Whole Building Demolition Debris: Consists of all building components (painted and non painted), including wood, brick, cement (foundations), plaster, drywall, etc., torn down during demolition and collected for disposal. Waste generation is based on analyses of sample(s) that are “representative” of the waste. Therefore, proportionate quantities of the various structural components can be obtained by coring or drilling through the materials, and combined for analyses in accordance with the TCLP requirements. (Note: For whole building demolition waste, there is ample data available for use as “generator knowledge” to support the characterization of this waste as non-hazardous SW. Reference: USAEHA Interim Final Report, Lead-Based Paint Contaminated Debris-Waste Characterization Study No. 37-26-JK44-92, May 1992 – May 1993.) Thus testing is at the generator’s discretion, as whole bldg. demolition has been shown not to result in HW.</p>	SW
<p>Partial Demolition (Building Renovation): May consist of a variety of components (painted and nonpainted) such as those in whole building demolition debris, but does not entail the entire building or structure. Same sampling procedures as in whole building demolition may be used. A second option involves careful predetermination and characterization of the individual components to allow for special handling and segregation procedures during the operations. Careful segregation is more feasible for renovations or partial demolitions than for whole building demolition. It may reduce the volume of hazardous waste, and may provide reuse options. Where segregation is not practical for a particular operation, the overall “representative” sample approach should be used. Knowledge of the age of the home may aid with your determination. You can hire a firm who may use an XRF machine to provide a basis for generator knowledge (HW, SW determination).</p>	HW/SW
<p>Unique Components: This category includes discrete components that have been removed for abatement or maintenance purposes. Such components may include baseboards, window frames and doors. Sampling should include the substrate (e.g., wood) and therefore be consistent with the “representative” approach. Depending on the proportion of pain to overall mass, it may be HW or SW.</p>	HW/SW
<p>Contaminated Media/Items: This category encompasses everything from paintchips and scrapings to solvents to personal protective clothing and other items that are “contaminated” with dust or paint chips or residues. Some items are listed below with associated waste characterizations.</p>	
<ul style="list-style-type: none"> • Paint chips/scrapings: contain and collect. Will need to test TCLP. Since it is concentrated and if probable lead paint was used, it should be handled, packaged, and disposed of as HW. 	HW
<ul style="list-style-type: none"> • Blast Grit: Since there are different types of grit material and degree of contamination will vary, limited sampling is recommended to make a complete waste determination. 	HW/SW
<p>Solvents: These may be hazardous for constituents other than lead and ignitability, specifically for RCRA “listed” compounds. The Safety Data Sheet (SDS) or other product information should be referred to for more information, but may not always provide information on listed wastes. “Listed” compounds are HWs regardless of lead concentrations. For otherwise nonhazardous solvents, the concentrations of lead must be established after use for ultimate waste characterization. Some solvents may be able to be distilled or recycled. While the “cleaned” solvent would not be HW, sludge or filters used for recycling purposes are probably HWs (see below)</p>	
<ul style="list-style-type: none"> • Caustic Pastes: Due to different compound and different paints, minimal sampling and analyses are suggested to make a complete waste determination. 	HW/SW
<ul style="list-style-type: none"> • Water: Water may be used during blasting, decontamination, rinsing, etc. Due to the different uses, sampling of wastewater is recommended. Whenever possible, recycle the water. Filters used in recycling may be HW (next bullet). 	HW/SW
<ul style="list-style-type: none"> • Filters, Sludge’s, etc.: Air filters, water filters used to recycle water, and solvent reclamation operations, are items are usually very “concentrated” with wastes high in lead and other toxins. These require testing or should be considered HW. 	HW
<ul style="list-style-type: none"> • Plastics, tarps, PPE: At the end of an operation or when disposal of these items is necessary, best management practices include proper containment (i.e., drumming) handling and disposal. If generated at a residence, it may be disposed of as solid waste. If generated at a child-occupied facility, such as a daycare or pre-school, or from other construction activities, then a HW determination must be made. In general, it may be most cost effective to classify these wastes as HW without sampling. 	HW
<ul style="list-style-type: none"> • Soil: Soil that is contaminated with lead (based on health risk assessment or EPA Office of Solid Waste and Emergency Response lead clean-up levels of 500-100 ppm), may have to be removed from a site and disposed. Similar to other materials previously discussed, the waste characterization of this removed soil will depend on a TCLP analysis for lead. Sampling is recommended to characterize the waste soil. Keep in mind Iowa’s Statewide Standards and if lead in the soil is of concern, it is best to contact the DNR Field Office for guidance. www.iowadnr.gov 	HW/SW

SW = Solid Waste HW = Hazardous Waste