



Standard Guide for Artists' Paint Waste Disposal in Smaller Commercial or Educational Settings¹

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1. Scope

1.1 This guide establishes recommendations for the safe and environmentally friendly clean up and disposal of artists' paints and by-products of their use in a smaller commercial or educational setting.

1.2 The values stated in inch-pound units are to be regarded as standard. No other units of measurement are included in this standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D4302 Specification for Artists' Oil, Resin-Oil, and Alkyd Paints

D5067 Specification for Artists' Watercolor Paints

D5098 Specification for Artists' Acrylic Dispersion Paints

3. Terminology

3.1 *Definitions:*

3.1.1 *conditionally-exempt small quantity generator (CESQG), n*—This United States Environmental Protection Agency (EPA) term refers to a hazardous waste generator that produces less than 200 lb (typically a half-full 55 gal drum of liquid) of hazardous waste per month (and less than 2.2 lb of acutely hazardous wastes) and never stores more than 2200 lb of hazardous waste (or 220 lb of acutely hazardous waste) on-site at any time however, state environmental regulators may have more stringent regulations on hazardous waste generators, contact them for more information.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

3.1.2 *grounding and bonding, v*—connecting and grounding containers to provide an electrically conductive path to reduce the risk of static and spark between the items, therefore, reducing the risk of fire or explosion in a flammable atmosphere or environment.

3.1.3 *organic solvents, n*—non-aqueous liquid substances capable of dissolving other substances.

3.1.3.1 *Discussion*—For artist's paints, these may include mineral spirits, turpentine, other petroleum and non-petroleum based solvents, and vegetable oil.

3.2 *Notes:*

3.2.1 *Hazardous Waste Vendor*—A company with an Environmental Protection Agency (EPA) ID # and permit for treatment, storage, and disposal of hazardous waste.

3.2.2 *EPA ID #*—To obtain, submit EPA Form 8700-12 (Notification of Regulated Waste Activity). This is not required federally for CESQG. However, state regulatory authorities or your hazardous waste vendor who disposes of your hazardous waste may require you to have an EPA ID #.

4. Summary of Guide

4.1 This guide establishes recommendations for the environmentally responsible clean up and disposal of waste produced by users of artists' paint products and solvents.

4.2 Several pigments listed in Specification **D4302** for inclusion in artists' oil, resin-oil, and alkyd, Specification **D5067** for artists' watercolor paints and Specification **D5098** for artists' acrylic dispersion paints are materials that the United States Environmental Protection Agency (EPA) considers hazardous waste when disposed of or released to the environment due to toxicity characteristic of pigments used in some artists' paints. These pigments are capable of groundwater contamination.

4.3 The solvents used with the artists' paints may also be hazardous waste when disposed of or released to the environment due to their flammability and toxicity. The addition of a hazardous pigment to an organic solvent or water may make the mixture also hazardous to the environment. Evaporation of these organic solvents can also harm human health and the environment.

4.4 These hazardous materials should be managed and stored carefully to prevent direct exposure and disposed of using a registered hazardous waste disposal company to prevent their release into the environment. Many small commercial and educational settings are regulated by the EPA in ways similar to large chemical companies. If they meet the requirement of a Conditionally Exempt Small Quantity Generator (definition, or 29 CFR 262), this guide will be directly applicable to them. Some states may place additional requirements on these smallest of waste generators. Larger commercial or educational settings in which the entire organization produces more than 220 lb of hazardous waste per month, likely have a designated environmental affairs manager designated to assist hazardous waste disposal. Contact this person for specific information about how your organization disposes of hazardous waste.

5. Significance and Use

5.1 Persons using artists' paints produce waste that could be harmful to the environment if released without precaution. Currently, many of these wastes are being released into the environment through ground or sanitary sewer disposal thus negatively impacting the environment. This is a particular problem with paints mixed with water, as they might be regulated because of the metals contained in the pigments used in artist's paint products, though many users are not aware of this environmental concern

5.2 This guide establishes recommendations for the environmentally responsible clean up and disposal of waste produce by users of artists' paint products and solvents. It does not supersede laws or regulations, but recommends prudent practices.

5.3 This guide's use should be limited to small commercial or educational settings and be considered as one way to meet regulatory requirements. In larger educational and commercial settings, an internal environmental compliance office or a local regulatory office should be consulted to determine if this guide will work within their requirements.

6. Procedure

6.1 For artists' paint which use other than water as a solvent, including organic solvents, linseed oil, or vegetable oil, the following procedures are appropriate for brush cleaning when using these paints:

6.1.1 Rinse brushes in a small (less than 8 oz.), closable container of the appropriate solvent, such as mineral spirits. Label containers of hazardous waste correctly including the words "Hazardous Waste," identify the contents, that is, "mineral spirits" and state any hazards, which appeared on the original container label(s).

6.1.2 Wipe brushes of all paint and solvent residue on a rag or paper towel.

6.1.3 Rinse brushes of remaining paint and solvent residue in ordinary vegetable oil. Wipe brushes on a rag or paper towel.

6.1.4 These rags and paper towels should be collected. Rags or paper towels contaminated with vegetable drying oils, particularly those containing iron oxide pigments are suscep-

tible to spontaneous combustion. Proper handling and disposal of rags and paper towels is covered in 6.2.2.

6.1.5 When the solvent is too saturated to effectively clean brushes, pour it and any paint pigment into a labeled collection container. The collection container should be appropriate for flammable liquids (fire safety can) and remain tightly closed except when adding material. Transferring solvents should be done in a well ventilated area and grounding and bonding procedures should be practiced.

6.2 These hazardous materials should be managed and stored carefully to prevent exposure to the user and disposed of using a reputable hazardous waste disposal company. Contact a hazardous waste vendor or your organization's environmental affairs manager for disposal.

6.2.1 Take precautions to prevent accidental ignition or reaction of ignitable or reactive wastes. Do not store flammable liquids near a flame or heat source.

6.2.1.1 Keep all collection containers closed, unless material is being added. Handle all containers carefully to prevent rupture or leakage. Properly label collection containers of hazardous waste. Labels should include the words "Hazardous Waste," identify the contents, that is, "mineral spirits and paint possibly containing cadmium, barium, lead, chromium, cyanide, selenium, and mercury" and state any hazards, such as "flammable." This will allow the material to be easily identified for appropriate disposal method or proper response in case of a spill.

6.2.2 Used rags or paper towels that contain solvents or pigment should be collected in a closeable, air-tight container. The possibility of spontaneous combustion exists with this material, so air must be kept out of the container. A fire safety-can should be considered for a collection container. Label the collection with the words "Hazardous Waste," contents of the container, that is, "mineral spirits and paint possibly containing cadmium, barium, lead, chromium, cyanide, selenium, and mercury" and an appropriated hazard warning, such as "flammable."

6.3 These hazardous materials should be managed and stored carefully to prevent exposure to the user. Contact a hazardous waste vendor or your organization's environmental affairs manager for disposal.

6.4 For artists' paints which use water as a solvent:

6.4.1 Wipe brushes of all paint on a rag or paper towel, then rinse brushes in a small container of water (used for color changes and thinning). Wipe brushes of remaining paint on a rag or paper towel.

6.4.2 For final cleaning use three larger containers of water (1 qt to 5 gal); the first container, Container A, first wash, soapy water, Container B, first rinse water, and Container C, final rinse water. Container size will depend on the number of persons using them and frequency of use. For a private individual, one quart containers may be adequate, whereas five-gallon buckets may be appropriate for larger groups of people.

6.4.3 For brush cleaning wash with the soapy water in Container A. Rinse well in clean water in Container B. Finally, rinse in clean water Container C.

6.4.4 When rinse water becomes too dirty to effectively clean, discard small container of water into Container A.

6.4.5 Disposal and changing of the final cleaning containers: Container A's contents will be poured into a collection container. Container B's contents will be poured into Container A and soap added. Container C's content will be poured into Container B and Container C will have clean water added to it.

6.5 It may be allowable to evaporate the water from the pigment residue reducing the volume of waste. In many areas the local authority may allow the water and pigment to be disposed of into the sink drain. Contact your local water/sewer authority or health department for more information. While this may be permissible by law, the environment may be better served if these materials are not released into the environment. Contact a hazardous waste vendor or your organization's environmental affairs manager for disposal options.

6.5.1 Used rags or paper towels that contain pigment should be collected in a closeable, airtight container for disposal. Label the containers "Hazardous Waste," list contents, "waste rags with paint possibly containing cadmium, barium, lead, chromium, cyanide, selenium, and mercury." Keep container closed unless adding material to the container. These hazardous materials should be managed and stored carefully to prevent exposure to the user and disposed of using a reputable hazardous waste disposal company. Usually these disposal

companies can oversee your entire waste management process. In larger organizations or educational settings which produce more than 220 lb of hazardous waste per month, there is likely a designated environmental person or office which manages the disposal of hazardous waste. Contact your organization's environmental affairs manager for further information on managing and disposing of your hazardous waste.

6.6 When discarding of canvases, palettes or other materials with residual pigments:

6.6.1 Use a container large enough to hold the material and still be closed or sealed. Label the container describing the hazardous contents, such as, "solid waste with paint possibly containing cadmium, barium, lead, chromium, cyanide, selenium, and mercury." These materials should be managed and stored carefully to prevent exposure to the user and disposed of using a reputable hazardous waste disposal company. Usually these disposal companies can oversee your entire waste management process. In larger organizations or educational settings which produce more than 220 lb of hazardous waste per month, contact your organization's environmental affairs manager for further information on managing and disposing of your hazardous waste.

7. Keywords

7.1 artists' paints disposal; hazardous waste

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