



Standard Guide for Disposal of Laboratory Chemicals and Samples¹

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1. Scope

1.1 This guide is intended to provide the chemical laboratory manager, chemical laboratory safety officer, and other relevant staff with guidelines for the disposal of small quantities of laboratory wastes safely and in an environmentally sound manner. This guide is applicable to laboratories that generate small quantities of chemical or toxic wastes. Generally, such tasks include, but are not limited to, analytical chemistry, process control, and research or life science laboratories. It would be impossible to address the disposal of all waste from all types of laboratories. This guide is intended to address the more common laboratory waste streams.

1.2 This guide is primarily intended to support compliance with environmental laws in the United States of America; however, the information contained herein can be useful to laboratories in other geopolitical jurisdictions. Some of these laws provide for states to take over regulation of air quality or natural water quality with the approval of the Environmental Protection Agency (EPA). Other matters, such as laboratory waste tracking, disposal as household garbage and use of sewers, are handled at the state, local or provider level throughout the country. Examples of providers are air scrubber services, municipal sewer systems, municipal and private garbage services, and treatment, storage or disposal facilities (TSD). Go to the EPA home page, click Wastes > Regions/States/Tribes > States to get help locating state regulations. Unfortunately, it is not possible for any one source to provide all the information necessary for laboratories to comply with all regulations. To ensure compliance, the laboratory manager must communicate with regulators at all four levels.

1.3 Though it would be convenient to cite each reference by its Universal Resource Locator (URL), this guide eschews that (because such references are too labile) with the exception of <http://www.epa.gov> for the United States Environmental Protection Agency, <http://www.dot.gov> or <http://www.hazmat.dot.gov> for the United States Department of Transportation, and <http://thomas.loc.gov> to follow pending

federal legislation in the United States. Intra-site links suggested here are also subject to obsolescence. However, one can enter in the web site search box the title of the document cited to locate it.

1.4 *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 limitations prior to use.*

2. Referenced Documents

2.1 *Department of Transportation Regulations:*²

49 CFR 172 Hazardous Materials Tables and Hazardous Materials Communications Regulations

49 CFR 172.203 DOT Hazardous Materials Table, Additional Description Requirements

49 CFR 173 Shippers—General Requirements for Shipments and Packagings

49 CFR 173.12(b) DOT Shippers' General Requirements for Shipments and Packagings. Exceptions for shipment of waste materials: Lab packs

49 CFR 178 Shipping Container Specifications

49 CFR 179 Specifications for Tank Cars

2.2 *EPA Regulations:*³

40 CFR 261 Protection of Environment. Identification and Listing of Hazardous Waste (includes 261.2, Definition of solid waste)

40 CFR 261.3 Definition of Hazardous Waste

40 CFR 261.33 Discarded Commercial Chemical Products, Off-Specifications Species, Container Residues, and Residues Thereof

40 CFR 261.5 Special Requirements for Hazardous Waste Generated by Small Quantity Generators

40 CFR 262.34 RCRA Standards Applicable to Generators of Hazardous Waste. Accumulation Time

40 CFR 262.40 EPA Standards Applicable to Generators of Hazardous Waste. Recordkeeping and Reporting: Record-keeping.

¹ This guide is under the jurisdiction of ASTM Committee D34 on Waste Management and is the direct responsibility of Subcommittee D34.01.01 on Planning for Sampling.

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² Available from PHMSA, U.S. Department of Transportation, 400 7th Street, SW, Washington, DC 20590; <http://hazmat.dot.gov/regs/rules.htm>

³ Available from United States Environmental Protection Agency (EPA), Ariel Rios Bldg., 1200 Pennsylvania Ave., NW, Washington, DC 20460; <http://www.epa.gov/epahome/lawregs.htm>