

Business Environmental Program Hazardous Waste Fact Sheet

Management of Wipers and Rags

The Nevada Division of Environmental Protection (NDEP) does not regulate cloth wipers or rags as hazardous waste provided they are laundered for reuse and the following guidelines are followed. Under the United States Environmental Protection Agency (EPA) Code of Federal Regulations (CFR) (40 CFR Sections 260—299) every business is responsible for determining whether any waste they generate is considered a hazardous or non-hazardous waste. In applying these regulations to spent wipers and rags, the regulatory interpretation can be quite complex and dependent upon the type of material the rag is composed of (paper wipe versus launderable cloth) as well as the various chemicals that have contaminated the wiper or rag.

Wipers/Rags Laundered for Reuse

In an effort to work with Nevada's businesses and provide reasonable regulatory oversight, NDEP has developed a position regarding the proper handling and disposal of spent wipers and rags that are generated within the state of Nevada. **If a business is using launderable wipers or rags, the contaminated cloth rags can be sent to a commercial laundering facility and handled as a non-hazardous solid waste provided the following conditions are met:** 1) the contaminated cloth rags are free of any liquids which can be removed by the conventional practice of wringing or dripping; and 2) the contaminated cloth rags are stored in a seal-tight container at all times during on-site storage, transportation to a laundering facility, and storage prior to treatment at a laundering facility, to prevent the release of air contaminants into the surrounding environment. Evaporation is not allowed. Failure to comply with these requirements could subject a business to enforcement actions for failure to properly contain and manage hazardous waste. It is in the best interest of any Nevada business that is generating contaminated cloth rags and paying to contract with a commercial laundering facility to ensure the facility they are contracting with is in compliance with their wastewater discharge permit issued by their local pre-treatment program. For specific information regarding contacts for the various pre-treatment coordinators located throughout the state of Nevada, contact the Business Environmental Program (BEP) at 1-800-882-3233.

Wipers/Rags which are not Laundered for Reuse

If a business is using wipers or rags which are not laundered for reuse, a waste determination is required to determine whether a soiled wiper or rag is considered a hazardous or non-hazardous waste. A wiper or rag can be determined to be a hazardous waste for any one of the following criteria:

Solvent Contamination

A number of cleaning solvents are listed as hazardous wastes in the CFR. These solvents are listed as waste codes F001 through F005. These listed solvent wastes include: tetrachloroethylene (TCE or Perc); methylene chloride (found in carburetor cleaner); 1, 1,1-trichloroethane (found in brake and electrical contact cleaners); xylene; acetone (paint thinner); toluene; methyl ethyl ketone (MEK, found in paint strippers, spot removers and resins).

<http://www.envnv.org>

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**BEP Toll-Free Assistance Line (800) 882-3233 (In Nevada) or (775) 689-6688
BEP Las Vegas (702) 866-5962**



Listed Toxic Solvents

A solvent mixture or blend which before use contains a greater than 10% combination of the solvents listed as F001, F002, F004, or F005 is considered to be a listed hazardous waste because of toxicity when disposed. Rags and wipers which are contaminated during use with these listed solvents are also regulated as hazardous waste in Nevada if they are not laundered for reuse. Therefore, these contaminated wipers and rags need to be properly managed on-site as hazardous waste, and transported to an appropriate recycling, treatment, or disposal facility according to the regulations, if they are not being laundered.

Listed Ignitable Solvents

Solvent mixtures or blends which contain greater than 10% of any of the F003 constituents before use are also regulated as listed hazardous waste in Nevada due to ignitable characteristics. However, in the case of wipers and rags contaminated with F003 solvents, the wiper or rag is considered hazardous only if the used wiper or rag is ignitable, or if contamination from the cleaning process renders it hazardous.

In order for the wiper or rag to be considered ignitable, it must be capable of causing fire through friction, absorption of moisture, or spontaneous chemical changes at standard temperature or pressure. If a wiper or rag used with a F003 solvent does not have this ignitable characteristic then it is not required to be managed as a hazardous waste, unless other contaminants from the cleaning process render the wiper or rag hazardous. Potential contaminants include: heavy metals, certain toxic organic chemicals, and listed chemical products.

Contaminants from Cleaning

The potential exists for rags to be contaminated with other substances during the cleaning process which may cause the wiper or rag to be regulated as hazardous waste. If the rag has the potential to be contaminated with heavy metals such as lead, cadmium, chromium, barium, mercury, or silver, or with organics such as benzene, MEK or trichloroethylene, or with certain pesticides, the rag or wiper may need to be tested using the Toxicity Characteristics Leaching Procedure to determine if it is hazardous.

Thirty-nine organic chemicals and heavy metals are included in EPA's toxicity characteristics list.

Contamination of wipers and rags with these constituents could cause them to be regulated as hazardous wastes.

Management of Wipers and Rags Determined to Be Hazardous Waste

Wipers and rags determined to be hazardous waste should be managed as you would other hazardous wastes. They must be placed in a closed and properly labeled container after use. The waste wipers and rags are subject to accumulation time requirements dependent on your generator status. Small and Large Quantity Generators are required to manifest shipments of these wipers and rags and use an EPA notified hazardous waste transporter. The facility the wipers or rags are shipped to needs to be a permitted hazardous waste treatment or disposal facility.

Options

If you are using solvents or other materials which are making your rags or wipers a hazardous waste, consider opportunities to use other products which would not make you rags or wipers hazardous. Information on alternative non-hazardous cleaning products are available from the BEP. These alternative cleaners can replace a number of the listed solvents.

If you cannot replace the solvent or material you are using, consider switching from rags to paper wipes to reduce the quantity of hazardous waste which you generate. This will reduce your potential waste management costs. If you can reuse rags or wipers, do so. The rag or wiper becomes a waste when you are no longer using it for its intended purpose. Maximizing the cleaning you perform per rag or wiper can reduce your waste generation. Explore ways to reduce your cleaning frequency or cleanliness requirements. Reduced cleaning can reduce solvent consumption and rag generation.

A wire rack placed in the bottom of your container may be a good idea if liquid can flow from the rags or wipers. Use of such a rack will allow you to collect the liquid solvent in the bottom of the container and separate it from the rags. This recovered solvent may be suitable for reuse or recycling.

Additional fact sheets on the waste related to this topic have been presented in the Business Environmental Program's *Put A Lid on It!*, *Toxicity Characteristic Leaching Procedures*, and *Suppliers of Alternative Cleaners and Equipment* fact sheets.