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PAINT BOOTH FILTERS

This fact sheet summarizes the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA).

RCRA requires businesses to perform a waste determination on all wastes generated to determine whether or not each is a hazardous waste. This can be done by laboratory analysis or by using “generator’s knowledge”. However, generator’s knowledge is accepted only when sufficient data is available to appropriately support such a conclusion. A written statement that identifies the waste as hazardous or non-hazardous and the data used should be kept whenever generator’s knowledge is used.

Paint booth filters act as an absorbent of paint overspray. Paint booth filters are often used to absorb waste solvent from the cleaning out of spray gun equipment. As such, the filters become contaminated with paint and/or spent solvents.

There are three ways paint booth filters can be hazardous when disposed. Spent paint booth filters can be ignitable, contain regulated concentrations of toxic heavy metals, and/or they may become contaminated with an F-listed spent solvent.

Spent filters that are still “wet” are potentially hazardous for the characteristic of Ignitability (flash point < 140 F). However, if filters are allowed to dry thoroughly prior to disposal, they are generally no longer ignitable.

Depending on the type of paints used, the spent filters have the potential to be hazardous for one or more toxic RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). In order to properly determine whether waste filters are hazardous for these metals, **current** Safety Data Sheets (SDS) on all paints should be obtained. These SDS can be readily obtained from a paint supplier or manufacturer. Determine which, if any, of the eight RCRA metals are listed as ingredients in each paint. Lead, barium, chromium, and cadmium are the most common. Be aware that the actual metal may be listed alone or as a part of another compound.

FOR EXAMPLE: ‘Lead chromate’ contains lead and chromium
‘Barium sulfate’ contains barium

Paint booth filters should be analyzed for each of the RCRA metals contained in paints to determine if levels are above the RCRA regulatory limit. If so, the filters are hazardous for the characteristic of Toxicity. The test required is the Toxicity Characteristic Leaching Procedure (TCLP). However, the ‘Totals’ test method may be used initially for screening purposes. Note that a laboratory must have the Department of Health National Environmental Laboratory

Accreditation Program (NELAP) certification. A list of these approved laboratories can be obtained from the Environmental Protection Commission of Hillsborough County (EPC).

It is also possible for paint filters to be considered F-listed hazardous waste. When cleaning the spray gun, if the spent solvent is sprayed out in such a way that it comes into contact with the filters, those filters may become F-listed hazardous waste, depending on the solvent(s) used. SDS's can also be used to determine the ingredients of the solvents used. If the solvent is listed under F001, F002, F004, or F005 on the F-list in RCRA, anything the spent solvent contaminates may be considered hazardous waste. A common example of a solvent that becomes F-listed waste is lacquer thinner, since it frequently contains toluene and methyl ethyl ketone. To help ensure your paint booth filters do not become an F-listed hazardous waste, cleaning solvent should only be sprayed out into the product paint for thinning or into a hazardous waste container.

Be aware that a hazardous waste determination must be repeated whenever there is a change in products, process, or procedure that could potentially affect whether the filters will be hazardous or non-hazardous.

Once the waste determination is complete, the proper disposal method must be chosen. If the filters are non-hazardous, they can be disposed as a solid waste in the normal solid waste stream (i.e., dumpster). However, the local solid waste department should be contacted for approval prior to disposal (Hillsborough County 813- 272-5680 and City of Tampa 813-348-1146). If the filters are hazardous, then a licensed hazardous waste transporter should be used to dispose of the waste. A list of hazardous waste transporters is available from the EPC.

Documentation of proper disposal must be kept on site for a minimum of three years. This includes any of the following: Safety Data Sheets and laboratory analyses used in the hazardous waste determination, generator's knowledge statements, uniform hazardous waste manifests, and disposal receipts from the disposal facility.

Questions regarding the proper management of solid and hazardous waste should be directed to the EPC's Small Quantity Generator Program at (813) 627-2600.

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