



HANFORD ENVIRONMENTAL
HEALTH FOUNDATION

0006972

September 25, 1989

CO 14075

Westinghouse Hanford Company
MSIN L6-78

Attn: F. A. Weakley

WASTE CHARACTERIZATION

Attached are the results of the analysis of one of two waste samples received June 8, 1989. This sample was reportedly a mixture of inks from the 313 Building.

The flash point of this sample was determined via ASTM D3278-82 using a Setaflash closed cup tester. The presence of halogenated hydrocarbons and other organic components were determined using gas chromatography/mass spectrometry (GC/MS).

The samples were analyzed for PCBs as follows: A portion of the sample was diluted in isooctane and cleaned through mechanical agitation, first with concentrated sulfuric acid and then with activated florisil. Analysis was by capillary gas chromatography using an electron capture detector. Sample chromatograms were compared against those from aroclor standards of known concentration.

Cadmium, chromium and lead were determined by solvent dissolution (USEPA Method 3040 SW-846, 2nd and 3rd Eds.) and flame atomic absorption spectroscopy. Arsenic was determined by nitric acid/hydrogen peroxide digestion (USEPA Method 3050 SW-846, 2nd and 3rd Eds.) and graphite furnace atomic absorption spectroscopy.

Your sample is being returned to you for disposal.

If you have any questions regarding this report, please contact Environmental Health Sciences.

Maurice K. Hamilton

M. K. Hamilton, CIH
Laboratory Director
Environmental Health Sciences

Jt

*Received EDM
1-4-90*

Sample ID	Description	PCBs	Flash Point °C	Other Characteristics
#300-INK	Black opaque organic liquid	NCAM ¹ , <2	<24	<p>Metals: <0.05 mg/Kg arsenic, 360 mg/Kg lead, 6.0 mg/Kg chromium, <0.1 mg/Kg cadmium</p> <p>GC/MS: 0.5% trichlorotrifluoroethane, 3% ethanol, 1% isopropanol, 1% MEK, 1% ethyl acetate, 0.5% methyl cellosolve, 6% butanol, 0.5% MIBK, 1% toluene, 1% 1,2-propanediol, 7% butyl acetate, 15% xylene, 12% C₉₋₁₀ subs. benzenes, 2% cresol, 1% aniline, 0.5% dimethyl phenol, 1% subs. naphthalenes, 2% aromatic sulfonamides, 0.5% benzyl pyridine, 3% heavy aliphatic acids, 10% phenyl/amino/amide compounds, 0.5% sulphur compounds, 10% C₇₋₁₀ aliphatics, 20% C₁₁₋₂₀ aliphatics</p>

¹NCAM means no complete aroclor match. This sample's chromatogram contains some peaks normally identified with aroclors 1242 or 1248; however, interference compounds preclude positive identification. If PCBs are present in this sample, their concentration is less than that of the method detection limit of 2 ppm as aroclors.

Example of a completed portion of this form forwarded to:
Hazardous Waste Unit
R1-51
Westinghouse

CHEMICAL WASTE DISPOSAL REQUEST

Manifest No. _____
 Disposal Analysis Distribution*
 1. Generator 4. _____
 2. H.W.U. 5. _____
 3. _____ 6. _____
 *May be used by generator

Generator Logbook No. 1 **300-89-25**

Requested By JM Bishop	Telephone No. 6-3518	MSIN L6-26	Company WHC
Signature/Date <i>A.M. Bishop</i> 9-29-89	Accumulation Date 6-8-89	Generating Facility DRFS	

WASTE DESCRIPTION (For additional items, continue on the back of this form)

A Item No.	B No. of Containers	C Container Size	D Container Description	E Total Waste Quantity (kg)	F Waste Description	G Chemical Components	H Weight %	I Physical Properties	J Hazards	K Waste Status	L Container Status
Example 1	1	55 gal	DOT 17E	205	TURCO Decon 4512A Solution, 10% in Water	TURCO 4512A MSDS Attached Water	10.0 90.0	Liquid, pH < 2 Flash point > 200°F	C	O	F
Example 2	1	5 gal	DOT 37M	34	Waste from Hg Cleanup	Mercury Rags Soil	1.3 4.0 94.7	Solid	EP	S	PF
Example 3	23	55 gal	Steel Drum	0	Empty Conoco 32 Oil Drums - Contained Used Oil	Oil-MSDS Attached PCB - Lab Data Attached	100.0 < 1 ppm	Liquid, pH = 8.2 Flash Point > 200°F	None	U	MT
1	1	50-liter polybottle In a 30-gal drum	17H steel drum	8.57	Various unneeded inks. No MSDS can be located & most of the companies no longer exist. Some inks date back to 1965.	See attached letter and analysis from HEHF.		Liquid with pigment particles. Flash point < 24°C.	EP	O	PF
					Dykem layout ink DuPont Vydax 550		20.62% 1.86%				
					Spryon Blue Lay-out fluid Flo-master ink		0.05% 21.36%				
					Rapid stencil ink Speedry Chemical ink		6.15% 5.51%				

INSTRUCTIONS

Accumulation Date - List the accumulation date of the oldest waste
Column A - Item Number - Item number for each unique waste.
Column B - Number of Containers - Number of containers of a unique waste to be disposed
Column C - Container Size - Size of containers specified in Column B. If multiple container sizes, specify number and size of each.
Column D - Container Description - Specify container's DOT specification. If non-DOT container or unknown, specify type, e.g. steel drum.
Column E - Total Waste Quantity - Total waste quantity (in kilograms only) of each unique waste to be disposed.
Column F - Waste Description - Specify trade name or general description of each unique waste. If waste material is a paint, specify color for evaluation of pigments.
Column G - Chemical Components - List all organic and inorganic components of the unique waste using specific chemical names. Attach Material Safety Data Sheets, analytical data, or other documents to adequately describe the composition of the waste.

Column H - Weight (%) - For each waste component indicate percent or range of percents in which the component is present in the waste. Trace amounts of pesticides, herbicides, heavy metals and PCB's should be specified. Components must add up to 100% including water, earth, or other components. If a unit other than percent is used, indicate the unit. When possible, provide test results or other documentation to verify percentages.
Column I - Physical Properties - Indicate whether Solid (S), Liquid (L), or Gas (G) or any combination of these phases, also indicate pH and flash point.
Column J - Hazards - Indicate whether waste is Corrosive (C), Ignitable (I), Reactive (R), Toxic (T), Explosive (E), Persistent (P), EP Toxic (EP) or Carcinogenic (X).
Column K - Waste Status - Indicate whether waste is: Reacted (Rx), Treated (T), New (N), Used (U), Old (or expired) (O), Spill Material (S).
Column L - Container Status - Indicate whether container is: Full (F), Partially Full (PF), Empty (< 1/3 in. in 55 Gal Drums) (MT), Triple Rinsed (TR).

