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National Survey of Hazardous Waste Generators

QUESTIONNAIRE GB

HAZARDOUS WASTE CHARACTERIZATION



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EPA ID: MSD007031230

G-GB 1 of 1

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**NOTE: ALL FACILITIES NEED TO COMPLETE
THIS QUESTIONNAIRE**

WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P, OR U WASTE CODE

A01 Spent solvent (F001-F005, K086)	A06 Contaminated soil or cleanup residue	A10 Incinerator ash
A02 Other organic liquid (F001-F005, K086)	A07 Other F or K waste, exactly as described*	A11 Solidified treatment residue
A03 Still bottom (F001-F005, K086)	A08 Concentrated off-spec or discarded product	A12 Other treatment residue (specify in the answer space provided)
A04 Other organic sludge (F001-F005, K086)	A09 Empty containers	A13 Other untreated waste (specify in the answer space provided)
A05 Wastewater or aqueous mixture		

*"Exactly as described" means that the waste matches the description of the RCRA waste code.

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA D OR X WASTE CODE* OR THAT DESCRIBED BY MORE THAN ONE RCRA OR X WASTE CODE

INORGANIC LIQUIDS—Waste that is primarily inorganic and highly fluid (e.g., aqueous), with low suspended inorganic solids and low organic content.

- B01 Aqueous waste with low solvents
- B02 Aqueous waste with low other toxic organics
- B03 Spent acid with metals
- B04 Spent acid without metals
- B05 Acidic aqueous waste
- B06 Caustic solution with metals but no cyanides
- B07 Caustic solution with metals and cyanides
- B08 Caustic solution with cyanides but no metals
- B09 Spent caustic
- B10 Caustic aqueous waste
- B11 Aqueous waste with reactive sulfides
- B12 Aqueous waste with other reactives (e.g., explosives)
- B13 Other aqueous waste with high dissolved solids
- B14 Other aqueous waste with low dissolved solids
- B15 Scrubber water
- B16 Leachate
- B17 Waste liquid mercury
- B18 Other inorganic liquid (specify in the answer space provided)

INORGANIC SLUDGES—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

- B19 Lime sludge without metals
- B20 Lime sludge with metals/metal hydroxide sludge
- B21 Wastewater treatment sludge with toxic organics
- B22 Other wastewater treatment sludge
- B23 Untreated plating sludge without cyanides
- B24 Untreated plating sludge with cyanides
- B25 Other sludge with cyanides
- B26 Sludge with reactive sulfides
- B27 Sludge with other reactives
- B28 Degreasing sludge with metal scale or filings
- B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
- B30 Sediment or lagoon dragout contaminated with organics
- B31 Sediment or lagoon dragout contaminated with inorganics only
- B32 Drilling mud

- B33 Asbestos slurry or sludge
- B34 Chloride or other brine sludge
- B35 Other inorganic sludge (specify in the answer space provided)

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

- B36 Soil contaminated with organics
- B37 Soil contaminated with inorganics only
- B38 Ash, slag, or other residue from incineration of wastes
- B39 Other "dry" ash, slag, or thermal residue
- B40 "Dry" lime or metal hydroxide solids chemically "fixed"
- B41 "Dry" lime or metal hydroxide solids not "fixed"
- B42 Metal scale, filings, or scrap
- B43 Empty or crushed metal drums or containers
- B44 Batteries or battery parts, casings, cores
- B45 Spent solid filters or adsorbents
- B46 Asbestos solids and debris
- B47 Metal-cyanide salts/chemicals
- B48 Reactive cyanide salts/chemicals
- B49 Reactive sulfide salts/chemicals
- B50 Other reactive salts/chemicals
- B51 Other metal salts/chemicals
- B52 Other waste inorganic chemicals
- B53 Lab packs of old chemicals only
- B54 Lab packs of debris only
- B55 Mixed lab packs
- B56 Other inorganic solids (specify in the answer space provided)

INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

- B57 Inorganic gases

ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

- B58 Concentrated solvent-water solution
- B59 Halogenated (e.g., chlorinated) solvent
- B60 Nonhalogenated solvent
- B61 Halogenated/nonhalogenated solvent mixture
- B62 Oil-water emulsion or mixture

- B63 Waste oil
- B64 Concentrated aqueous solution of other organics
- B65 Concentrated phenolics
- B66 Organic paint, ink, lacquer, or varnish
- B67 Adhesives or epoxies
- B68 Paint thinner or petroleum distillates
- B69 Reactive or polymerizable organic liquid
- B70 Other organic liquid (specify in the answer space provided)

ORGANIC SLUDGES—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

- B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
- B72 Still bottoms of nonhalogenated solvents or other organic liquids
- B73 Oily sludge
- B74 Organic paint or ink sludge
- B75 Reactive or polymerizable organics
- B76 Resins, tars, or tarry sludge
- B77 Biological treatment sludge
- B78 Sewage or other untreated biological sludge
- B79 Other organic sludge (specify in the answer space provided)

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

- B80 Halogenated pesticide solid
- B81 Nonhalogenated pesticide solid
- B82 Solid resins or polymerized organics
- B83 Spent carbon
- B84 Reactive organic solid
- B85 Empty fiber or plastic containers
- B86 Lab packs of old chemicals only
- B87 Lab packs of debris only
- B88 Mixed lab packs
- B89 Other halogenated organic solid (specify in the answer space provided)
- B90 Other nonhalogenated organic solid (specify in the answer space provided)

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

- B91 Organic gases

*A list of X waste codes was developed specifically for this survey. These X codes are not official RCRA waste codes and should be used ONLY for this survey.

Read the Instructions booklet **BEFORE** you answer this questionnaire. The Instructions contain example questions, lists of RCRA and other waste codes, and other important information you will need to consult as you complete the questions.

EPA needs the detailed waste characterization information requested in this questionnaire to address the following: the treatability of the hazardous waste generated onsite based on the constituents in the waste, the relationship between the constituents in the hazardous waste generated onsite and the processes that generated the waste, and the industry-wide variations in the types and quantity of hazardous waste generated.

This questionnaire asks for detailed information on **EACH** hazardous waste generated onsite at this facility during **1986**:

- Quantity generated (including the quantity that was generated in 1985).
- Onsite and offsite management of the hazardous waste.
- Physical/chemical form, chemical characteristics, and constituents of the hazardous waste.
- Waste minimization practices for the hazardous waste.

The information requested must be answered for **EACH** hazardous waste generated onsite during 1986. This questionnaire is designed with five sets of answer spaces. These answer spaces appear in the gray columns opposite the questions. If your facility generated more than five different hazardous wastes onsite during 1986, call the Survey Helpline and we will provide additional answer spaces in one or more answer booklets specially designed and labeled for your facility. **DO NOT PHOTOCOPY THIS QUESTIONNAIRE TO CREATE MORE ANSWER SPACES.**

If you wish to clarify or explain any answers you give, use the two lined pages labeled "FACILITY NOTES" at the end of this questionnaire. Beside each question that you wish to clarify or explain, write "see note." Then turn to the note pages, enter the question number, the hazardous waste number, and write your comments beside the numbers. If a single note applies to more than one question, write the numbers of all the questions the note applies to.

If you need more answer spaces or have any questions about this survey or this questionnaire, call the Survey Helpline (1-800-635-8850).

For this survey, report all waste in the following categories as hazardous waste:

- Any waste considered hazardous waste under RCRA. This includes hazardous wastewater pretreated prior to discharge under a National Pollutant Discharge Elimination System (NPDES) permit or prior to discharge to a publicly owned treatment works (POTW); hazardous waste generated in a production process or waste treatment process; and hazardous waste that is a characteristic waste, even though it may lose its hazardous waste characteristic through mixing with other wastewater or by treatment.
- Any waste considered hazardous by your state.
- Wastes containing polychlorinated biphenyls (PCBs).
- Wastes containing asbestos.
- Wastes containing dioxins/furans.
- Radioactive waste mixed with hazardous waste.

Complete Questions 1 through 46 for EACH hazardous waste or wastewater that was generated onsite at this facility during 1986. Refer to the box on page 1 of this booklet for the types of wastes that should be reported in this survey. Hazardous waste treatment residuals generated onsite and hazardous wastes that were generated onsite during the closure of surface impoundments or waste piles must also be reported. Report separately hazardous wastes that have the same RCRA waste code but were generated from different sources. To minimize errors in recording your answers in the multiple answer columns, answer the questions for only one hazardous waste at a time. A space has been provided at the top of each answer column for you to enter the name of the hazardous waste so that the information for each hazardous waste is recorded in the correct column. Call the Survey Helpline (1-800-635-8850) if you need additional answer spaces or if you have any questions.

Question	Hazardous Waste <i>PA</i> No. <i>6</i>	Hazardous Waste <i>ASBESTOS</i> No. <i>7</i>
1. What RCRA waste code or codes best describe this hazardous waste? See Appendix C of the Instructions booklet for a list of RCRA and other waste codes. If you generate a waste that is considered hazardous by regulations in your state and a waste code is not provided, call the Survey Helpline (1-800-635-8850).	a. U 1 9 0 b. c. d. e.	a. X A S B b. c. d. e.
Use the list of Waste Description Codes on the inside front cover of this questionnaire to answer Questions 2 and 3. If a code requires you to specify, do so in the space provided. 2. What Waste Description Code best describes this hazardous waste?	A 0 6 <i>SPILL CLEANUP</i> (specify)	B 4 6 <i>ASBESTOS GASKETS & INSULATION</i> (specify)
3. What other Waste Description Codes describe this hazardous waste? (If no other Waste Description Codes describe this waste, enter "NA.")	a. N A (specify) b. (specify) c. (specify)	a. N A (specify) b. (specify) c. (specify)

QUESTIONNAIRE GB

HAZARDOUS WASTE CHARACTERIZATION

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Hazardous Waste No. 8 APE SOLIDS	Hazardous Waste No. 9 BLO VENT DUST	Hazardous Waste No. 5
a. D 0 0 8	a. D 0 0 8	a.
b.	b.	b.
c.	c.	c.
d.	d.	d.
e.	e.	e.
B 8 9 SETTLED SOLIDS (specify)	B 8 9 DUST COLLECTOR SOLIDS (specify)	 (specify)
a. N A	a. N A	a.
(specify)	(specify)	(specify)
b.	b.	b.
(specify)	(specify)	(specify)
c.	c.	c.
(specify)	(specify)	(specify)

Question	Hazardous Waste No. # 6 <u>PA</u>	Hazardous Waste No. # 7 <u>ASBESTOS</u>
Use the list of Waste Source Codes on the inside back cover of this questionnaire to answer Questions 4 and 5. If a code requires you to specify, do so in the space provided. 4. What Waste Source Code best describes the process(es) at this facility that generate this hazardous waste?	<u>S 5 1</u> <u>SPILL CLEANUP</u> (specify)	<u>S 4 8</u> <u>GASKET & INSULATION</u> <u>REMOVAL</u> (specify)
5. What other Waste Source Codes describe the process(es) at this facility that generate this hazardous waste? (If no other Waste Source Codes describe the processes that generate this waste, enter "NA.")	a. <u>S N A</u> (specify) b. <u>S</u> <u> </u> <u> </u> (specify) c. <u>S</u> <u> </u> <u> </u> (specify)	a. <u>S N A</u> (specify) b. <u>S</u> <u> </u> <u> </u> (specify) c. <u>S</u> <u> </u> <u> </u> (specify)
6. What four-digit SIC code(s) describes the operations at this facility that generate this hazardous waste? (List up to three SIC codes. See Appendix B of the Instructions booklet for a list of SIC codes.)	a. <u>2 8 6 9</u> b. <u> </u> <u> </u> <u> </u> <u> </u> c. <u> </u> <u> </u> <u> </u> <u> </u>	a. <u>2 8 2 1</u> b. <u>2 8 6 9</u> c. <u> </u> <u> </u> <u> </u> <u> </u>
7. Describe the process(es) that generate this hazardous waste, including a description of any products produced by the process(es).	<u>PLASTICIZER</u> <u>PRODUCTION.</u> <u>PRODUCT</u> <u>PLASTICIZER</u>	<u>PVC & PLASTICIZER</u> <u>PRODUCTION.</u> <u>PRODUCTS PVC</u> <u>& PLASTICIZER</u>

Hazardous Waste No. 8 APR SOLIDS	Hazardous Waste No. 9 BLD VENT DUST	Hazardous Waste No. 5
S 6 0 SETTLING TANK CLEANOUT (specify)	S 6 0 DUST COLLECTOR SOLID (specify)	S (specify)
a. S N A (specify)	a. S N A (specify)	a. S (specify)
b. S (specify)	b. S (specify)	b. S (specify)
c. S (specify)	c. S (specify)	c. S (specify)
a. 2 8 2 1	a. 2 8 2 1	a.
b.	b.	b.
c.	c.	c.
PVC, COMPOUND & DRY BLEND PROCESSES. PRODUCTS PVC, COMPOUND & PLASTICIZER.	COMPOUND & DRY BLEND PROCESSES. PRODUCTS COMPOUND & DRY BLEND	

Question	Hazardous Waste No. 16 <i>PA</i>	Hazardous Waste No. 17 <i>ASBESTOS</i>
8. Was this hazardous waste generated from the closure of a surface impoundment or waste pile? (Circle one) Yes No	01 02	01 02
9. What quantity of this hazardous waste was generated onsite DURING 1985? (Enter the quantity and circle a unit of measure. If this hazardous waste was not generated onsite during 1985, enter zero.) a. Quantity b. Unit of measure (Circle one) Tons Gallons	 3 01 02	 0 01 02
10. What quantity of this hazardous waste was generated onsite DURING 1986? (Enter the quantity and circle a unit of measure) a. Quantity b. Unit of measure (Circle one) Tons Gallons	 1 01 02	 1 01 02

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Hazardous Waste No. 38 <u>API SOLIDS</u>	Hazardous Waste No. 49 <u>BLD VENT DUST</u>	Hazardous Waste No. 5
3	1 1 9	
1 1 8	1 4 6	

HAZARDOUS WASTE MANAGEMENT

Question	Hazardous Waste No. 10 <i>PA</i>	Hazardous Waste No. 7 <i>ASBESTOS</i>
11. What was the general sequence of management operations this hazardous waste went through ONSITE during 1986? (Enter process codes from Appendix A of the Instructions booklet to describe the general or typical sequence of management operations for this hazardous waste. Include in your answer any exempt processes this hazardous waste went through.)	1st I S T 2nd 3rd 4th 5th 6th 7th 8th 9th 10th	1st I S T 2nd 3rd 4th 5th 6th 7th 8th 9th 10th
12. Was this waste discharged to a POTW WITHOUT prior treatment during 1986? (Circle one) Yes No	01 02	01 02
13. Was this waste discharged to a POTW following treatment during 1986? (Circle one) Yes No	01 02	01 02
14. Was this waste discharged under a NPDES permit WITHOUT prior treatment during 1986? (Circle one) Yes No	01 02	01 02
15. Was this waste discharged under a NPDES permit following treatment during 1986? (Circle one) Yes No	01 02	01 02

Hazardous Waste No. 8 <i>API SOLIDS</i>	Hazardous Waste No. 9 <i>BLD VENT DUST</i>	Hazardous Waste No. 5
1st 64WT	1st 5AP	1st
2nd 	2nd 1A	2nd
3rd 	3rd 	3rd
4th 	4th 	4th
5th 	5th 	5th
6th 	6th 	6th
7th 	7th 	7th
8th 	8th 	8th
9th 	9th 	9th
10th 	10th 	10th
01 02	01 02	01 02
01 02	01 02	01 02
01 02	01 02	01 02
01 02	01 02	01 02

NOTE: The quantities entered for Questions 16 through 18 may be different from the quantity of hazardous waste that was generated onsite during 1986 due to alteration by treatment processes.

Question	Hazardous Waste No. 16 PA	Hazardous Waste No. 7 ASBESTOS
16. Of the quantity of this hazardous waste that was generated onsite during 1986 and that STILL REMAINS HAZARDOUS, how much was or will be disposed of ONSITE? (If this hazardous waste was solidified prior to disposal, enter the quantity prior to solidification. Enter the quantities and circle a unit of measure; if none, enter zero.) a. Quantity disposed of onsite in a surface impoundment, landfill, or land treatment area i. Quantity ii. Unit of measure (Circle one) Tons Gallons b. Quantity disposed of onsite in an underground injection well i. Quantity ii. Unit of measure (Circle one) Tons Million gallons	 0 01 02 0 01 02	 0 01 02 0 01 02
17. Of the quantity of this hazardous waste that was generated onsite during 1986, how much was or will be managed ONSITE in the following methods? (Enter the quantities and circle a unit of measure; if none, enter zero.) a. Treated onsite in a surface impoundment i. Quantity ii. Unit of measure (Circle one) Tons Gallons b. Stored onsite in a surface impoundment i. Quantity ii. Unit of measure (Circle one) Tons Gallons c. Stored or treated onsite in a waste pile i. Quantity ii. Unit of measure (Circle one) Tons Cubic yards	 0 01 02 0 01 02 0 01 02	 0 01 02 0 01 02 0 01 02

Hazardous Waste No. 8 API SOLIDS	Hazardous Waste No. 9 BLD VENT DUST	Hazardous Waste No. 5
0 01 02	0 01 02	01 02
0 01 02	0 01 02	01 02
0 01 02	0 01 02	01 02
0 01 02	0 01 02	01 02

Hazardous Waste No. 8 APL SOLIDS 1 1 8 01 02 CHEMICAL WASTE MANAGEMENT A L 0 0 0 6 2 2 4 6 4 1st. M 1 3 2nd. M 3rd. M 4th. M 5th. M	Hazardous Waste No. 9 BLD VENT DUST 1 4 6 01 02 CHEMICAL WASTE MANAGEMENT A L 0 0 0 6 2 2 4 6 4 1st. M 1 3 2nd. M 3rd. M 4th. M 5th. M	Hazardous Waste No. 5 01 02 1st. M 2nd. M 3rd. M 4th. M 5th. M
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(continued)

Hazardous Waste No. 8 <i>APR SOLIDS</i>	
<i>NA</i>	
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M
<i>NA</i>	
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M

Hazardous Waste No. 9 <i>BLD VENT DUST</i>	
<i>NA</i>	
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M
<i>NA</i>	
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M

Hazardous Waste No. 5	
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M
1st.	M
2nd.	M
3rd.	M
4th.	M
5th.	M

PHYSICAL/CHEMICAL FORM, CHEMICAL CHARACTERISTICS, AND CONSTITUENTS

NOTE: The basis for your answers to Questions 20 and 21 may be either waste testing or general knowledge of the waste. You must provide all available information, but YOU DO NOT HAVE TO CONDUCT ADDITIONAL TESTING TO RESPOND TO THIS SURVEY. If you do not have the information available to enter values for the parameters listed, enter one of the following codes:

"P" — Present, value of parameter unknown.

"DK" — Do not know.

In some cases, the parameters listed will not apply to every waste. For example, cyanide and pH are typically measured for wastewaters but not for waste solvents; while Btu and flash point are primarily measured for organic wastes. If the parameter does not apply, enter "NA," for not applicable.

For variable waste streams, enter the typical value in the answer space and provide an explanation and range in the "Facility Notes."

For each parameter listed, indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.

Question	Hazardous Waste No. 16	Hazardous Waste No. 21
20. What is the physical/chemical form of this hazardous waste? For each parameter listed, enter the typical value and indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.		
a. Total solids content	NA %	NA %
b. Total suspended solids	NA %	NA %
c. Ash content	NA %	NA %
d. Water content	NA %	NA %
e. Total organic carbon—TOC	NA %	NA %
f. Oil and grease	NA %	NA %
g. Specific gravity (The specific gravity of water is 1.0)	1.11	0.50

Hazardous Waste No. 8 <i>API SOLIDS</i>	Hazardous Waste No. 9 <i>BLO VENT DUST</i>	Hazardous Waste No. 5
Basis for Data 50 % NA % NA % 50 % NA % NA % 1 . 10 2 2 2	Basis for Data NA % NA % NA % NA % NA % NA % 1 . 00 2	Basis for Data % % % % % % .

Question	Hazardous Waste No. <u>PA</u> <u>6</u>	Basis for Data	Hazardous Waste No. <u>7</u>	Basis for Data
21. What are the characteristics of this hazardous waste? <i>For each parameter listed, enter the typical value and indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.</i>				
a. pH	NA	☐	NA	☐
b. Flash point (°F)	NA	☐	NA	☐
c. Btu (higher heating value, per pound)	NA	☐	NA	☐
d. Total organic halogen (%)	NA	☐	NA	☐
e. Cyanide (ppm)	NA	☐	NA	☐
f. Fluoride (ppm)	NA	☐	NA	☐
g. Sulfide (ppm)	NA	☐	NA	☐
h. 5-day biological oxygen demand—BOD (ppm)	NA	☐	NA	☐
i. Chemical oxygen demand—COD (ppm)	NA	☐	NA	☐
22. Is this hazardous waste a liquid by the paint filter test? (Circle one)				
Yes	01		01	
No	☒ 02		☒ 02	
Don't know	03		03	
23. Does this hazardous waste contain any constituents in concentrations that exceed the California List land disposal limits? (Circle one)				
Yes	01		01	
No	☒ 02		☒ 02	
Don't know	03		03	

Hazardous Waste No. 8 <i>APZ SOLIDS</i>	Hazardous Waste No. 9 <i>BLO VENT DUST</i>	Hazardous Waste No. 5
NA NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA NA	
01 02 03	01 02 03	01 02 03
01 02 03	01 02 03	01 02 03

Question	Hazardous Waste No. 4 <i>PA</i>	Hazardous Waste No. 7 <i>ASBESTOS</i>
24. Are there any metal constituents present in this hazardous waste? (Circle one) Yes (Go to next question) 01 No (Circle 02 and skip to the note on page 24 prior to Question 26 for this hazardous waste) 02 (Skip to Q.26)		 01 02 (Skip to Q.26)

NOTE: The basis for your answer to Question 25 may be either waste testing or general knowledge of the waste. You must provide all available information, but **YOU DO NOT HAVE TO CONDUCT ADDITIONAL TESTING TO RESPOND TO THIS SURVEY.** If you do not have the information available to enter concentration range codes (from the box on page 22) for the metal constituents listed, enter one of the following codes:

"P" — Present, concentration of constituent unknown.

"DK" — Do not know if constituent is present.

If a constituent is not present in a waste, enter "NP."

For variable waste streams, enter the code for the typical concentration in the answer space and provide an explanation and concentration range in the "Facility Notes."

For each metal constituent listed, indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.

Hazardous Waste No. 1 APR SOLIDS	Hazardous Waste No. 2 BLD VENT DUST	Hazardous Waste No. 5
(01)	(01)	01
02 (Skip to Q.26)	02 (Skip to Q.26)	02 (Skip to Q.26)

CONSTITUENT CONCENTRATION RANGE CODES:

01 — ≥ 90%
02 — ≥ 75% < 90%
03 — ≥ 50% < 75%
04 — ≥ 25% < 50%
05 — ≥ 10% < 25%

06 — ≥ 1% < 10%
07 — ≥ 0.1% < 1%
08 — ≥ 500 ppm < 0.1%
09 — ≥ 100 ppm < 500 ppm
10 — ≥ 10 ppm < 100 ppm

11 — ≥ 1 ppm < 10 ppm
12 — ≥ 0.1 ppm < 1 ppm
13 — ≥ 1 ppb < 0.1 ppm
14 — < 1 ppb

Question	Hazardous Waste No. 24 PA		Hazardous Waste No. 27 Asbestos	
25. What is the concentration range of the metal constituents listed below in this hazardous waste? Indicate the concentration range of each constituent by entering the numerical code corresponding to the appropriate range provided in the above box. Indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.				
a. Antimony				
b. Arsenic				
c. Barium				
d. Beryllium				
e. Cadmium				
f. Chromium (total)				
g. Chromium (hexavalent)				
h. Copper				
i. Lead				
j. Mercury				
k. Nickel				
l. Selenium				
m. Silver				
n. Thallium				
o. Vanadium				
p. Zinc				

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Hazardous Waste No. 8 APR SOLIDS		Hazardous Waste No. 9 BLD VENT DUST		Hazardous Waste No. 5	
DK	<u>Basis for Data</u>	09	<u>Basis for Data</u>		<u>Basis for Data</u>
DK		DK			
10	2	DK			
DK		DK			
11	2	DK			
DK		DK			
DK		DK			
DK		DK			
08	2	06	1		
DK		DK			
DK		DK			
DK		DK			
DK		DK			
DK		DK			
DK		DK			
DK		DK			
DK		DK			

NOTE: The basis for your answer to Question 26 may be either waste testing or general knowledge of the waste. You must provide all available information, but YOU DO NOT HAVE TO CONDUCT ADDITIONAL TESTING TO RESPOND TO THIS SURVEY. If you do not have the information available to enter a concentration range code for each hazardous constituent you list, enter "P" for present, concentration of constituent unknown. For variable waste streams, enter the code for the typical concentration in the answer space and provide an explanation and concentration range in the "Facility Notes."

For each hazardous constituent you list, indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate.

Question	Hazardous Waste PA No. 16			Hazardous Waste No. 17 Asbestos		
	Constituent Code	Concentration Range Code	Basis for Data	Constituent Code	Concentration Range Code	Basis for Data
26. Which hazardous constituents (40 CFR §261, Appendix VIII) of this hazardous waste are of the greatest concern either due to their toxicity or concentration? What is the concentration range of these hazardous constituents? Enter up to 10 codes from Appendix D of the Instructions booklet for the hazardous constituents with the highest concentration. Indicate the concentration range of the constituents by entering the numerical code corresponding to the appropriate range provided in the box on page 25. Indicate the basis for the data you provide by entering a "1" for analysis based on testing or a "2" for an estimate. If no Appendix VIII hazardous constituents are present in this waste, enter "NA" in the answer space for Constituent No. 1.						
Constituent No. 1	Y 3 1 9	0 2	1	Y		
Constituent No. 2	Y			Y		
Constituent No. 3	Y			Y		
Constituent No. 4	Y			Y		
Constituent No. 5	Y			Y		
Constituent No. 6	Y			Y		
Constituent No. 7	Y			Y		
Constituent No. 8	Y			Y		
Constituent No. 9	Y			Y		
Constituent No. 10	Y			Y		

11 — $\geq 1 \text{ ppm} < 10 \text{ ppm}$
 12 — $\geq 0.1 \text{ ppm} < 1 \text{ ppm}$
 13 — $\geq 1 \text{ ppb} < 0.1 \text{ ppm}$
 14 — $< 1 \text{ ppb}$

VAB.0001121627

TESTING PROCEDURES

Question	Hazardous Waste No. # 6 <i>PA</i>	Hazardous Waste No. # 7 <i>Asbestos</i>
27. Is this hazardous waste a characteristic waste? (Circle one) Characteristic wastes are RCRA "D" wastes that exhibit ignitable, corrosive, reactive, or toxic characteristics. Yes (Go to next question) 01 No (Circle 02 and skip to Question 31 on page 34 for this hazardous waste) 02 (Skip to Q.31)		
28. How did you determine that this waste was hazardous? (Circle all that apply) Waste testing 01 Mass balance shows that bulk concentrations (mass of pollutants per mass of waste) of hazardous constituents are above regulatory threshold levels 02 Mass balance performed in conjunction with a leaching model shows that extraction concentrations (as shown under the extraction procedure toxicity characteristic leaching protocol) of hazardous constituents are above regulatory threshold levels 03 Demonstration that hazardous constituents are present in raw materials or by-products of the process 04 Other (specify) 05 _____ _____ (specify)		

Hazardous Waste No. 8 <i>APR SOLIDS</i>	Hazardous Waste No. 9 <i>OLD VENT DUST</i>	Hazardous Waste No. 5
01	01	01
02 (Skip to Q.31)	02 (Skip to Q.31)	02 (Skip to Q.31)
01	01	01
02	02	02
03	03	03
04	04	04
05	05	05
(specify)	(specify)	(specify)

Do this - No

Question	Hazardous Waste No. 96 PA	Hazardous Waste No. 7 ASB 84-05
29. What types of test does this facility conduct (either onsite or offsite) on this hazardous waste? (Circle all that apply)		
No testing is done on this hazardous waste (Circle 01 and skip to Question 31 on page 34 for this hazardous waste)	01 (Skip to Q.31)	01 (Skip to Q.31)
EP toxicity test	02	02
Corrosivity	03	03
Reactivity	04	04
Ignitibility	05	05
Total constituent analysis	06	06
Toxicity characteristic leaching procedure (TCLP)	07	07
Other (specify)	08	08
	(specify)	(specify)

Hazardous Waste No. 3 <u>APZ SOLIDS</u>	
01 (Skip to Q.31)	
<u>02</u>	
03	
04	
05	
06	
07	
08	
(specify)	

Hazardous Waste No. 4 <u>BLD VENT DUST</u>	
01 (Skip to Q.31)	
02	
03	
04	
05	
06	
07	
<u>08</u>	
<u>ANAL CONSTITUENT ANALYSIS</u>	
(specify)	

Hazardous Waste No. 5	
01 (Skip to Q.31)	
02	
03	
04	
05	
06	
07	
08	
(specify)	

Question	Hazardous Waste No. PA 04	Hazardous Waste No. 7 ASBESTOS
30. Describe the testing procedures for this hazardous waste. <i>Complete Question 30 for EACH type of test that you indicated in Question 29 that you conduct on this hazardous waste. If you conduct more than two types of tests on this hazardous waste, call the Survey Helpline (1-800-635-8850) for additional answer spaces.</i> Test Type 1 1a. Type of test conducted (Circle one) EP toxicity test 01 Corrosivity 02 Reactivity 03 Ignitibility 04 Total constituent analysis 05 TCLP 06 Other (specify) 07 _____ (specify)		
1b. Frequency of testing (Circle one) Only when the waste was first generated 01 Less than once per year (specify how frequently) 02 _____ (specify) Annually or more often (specify the number of times per year) 03 _____ (specify) Continuously (Circle 04 and skip to Question 1e for this hazardous waste) 04 (Skip to Q.1e)		
1c. Typical number of samples per test		
1d. For each sample taken, typical number of replicates analyzed		
1e. Location of testing (Circle one) Onsite at this facility 01 Offsite at a facility under the same ownership 02 Offsite at a facility NOT under the same ownership 03		

Hazardous Waste No. 8 AP8 SOLIDS	Hazardous Waste No. 9 BLD VENT DUST	Hazardous Waste No. 5
01 02 03 04 05 06 07 (specify)	01 02 03 04 05 06 07 PARTIAL CONSTITUENT ANALYSIS (specify)	01 02 03 04 05 06 07 (specify)
01 02 (specify) 03 (specify) 04 (Skip to Q.1e)	01 02 (specify) 03 (specify) 04 (Skip to Q.1e)	01 02 (specify) 03 (specify) 04 (Skip to Q.1e)
03 0	01 0	
01 02 03	01 02 03	01 02 03

Question	Hazardous Waste No. 6	Hazardous Waste No. 7
30. (continued) Test Type 2 2a. Type of test conducted (Circle one) EP toxicity test Corrosivity Reactivity Ignitibility Total constituent analysis TCLP Other (specify)	01 02 03 04 05 06 07 (specify)	01 02 03 04 05 06 07 (specify)
2b. Frequency of testing (Circle one) Only when the waste was first generated Less than once per year (specify how frequently) Annually or more often (specify the number of times per year) Continuously (Circle 04 and skip to Question 2e for this hazardous waste)	01 02 (specify) 03 (specify) 04 (Skip to Q.2e)	01 02 (specify) 03 (specify) 04 (Skip to Q.2e)
2c. Typical number of samples per test		
2d. For each sample taken, typical number of replicates analyzed		
2e. Location of testing (Circle one) Onsite at this facility Offsite at a facility under the same ownership Offsite at a facility NOT under the same ownership	01 02 03	01 02 03

Hazardous Waste No. 8 <i>ATE Solids</i>	Hazardous Waste No. 9 <i>BLD VENT DUST</i>	Hazardous Waste No. 5
01	01	01
02	02	02
03	03	03
04	04	04
05	05	05
06	06	06
07	07	07
(specify)	(specify)	(specify)
01	01	01
02	02	02
(specify)	(specify)	(specify)
03	03	03
(specify)	(specify)	(specify)
04 (Skip to Q.2e)	04 (Skip to Q.2e)	04 (Skip to Q.2e)
☐	☐	☐
☐	☐	☐
01	01	01
02	02	02
03	03	03

HAZARDOUS WASTE MINIMIZATION

Question	Hazardous Waste No. 4	Hazardous Waste No. 7
31. Was this hazardous waste generated by a one-time discharge or process or from a clean out or closure process? (Circle one) See the Waste Source Codes on the inside back cover of this questionnaire for a list of one-time processes and clean out or closure processes. Yes (Circle 01 and skip to Question 47 on on page 42 for this hazardous waste) No (Go to next question)	01 (Skip to Q.47) 02	01 (Skip to Q.47) 02
32. For the process(es) that generated this hazardous waste, what was the percentage change in PRODUCT PRODUCTION from 1985 to 1986? (Use 1985 as the base year in your calculation. If more than one process was operated to generate this hazardous waste, enter the combined change in production for ALL of the processes that generated this hazardous waste.) a. Percentage change in product production b. Unit of measure (Circle one) Percentage increase Percentage decrease	11 % 01 02	4 % 01 02
33. Were any of the following waste minimization practices implemented PRIOR TO 1986 for the process(es) that generate this hazardous waste? (Circle all that apply) Equipment or technology modification/substitution Process or procedure modification/substitution (including closed-loop recycling) Reformulation or redesign of product Modification/substitution of input or raw material Better housekeeping, better operating practices Waste stream segregation Onsite recycling or recovery for reuse Offsite recycling or recovery for reuse None (Circle 09 and skip to Question 39 on page 38 for this hazardous waste) Other (specify)	01 02 03 04 05 06 07 08 09 (Skip to Q.39) 10	01 02 03 04 05 06 07 08 09 (Skip to Q.39) VAB10001121636

Hazardous Waste No. 8 <i>API SOLIDS</i>	Hazardous Waste No. 9 <i>BLD VENT DUST</i>	Hazardous Waste No. 5
01 (Skip to Q.47) 02	10 01 (Skip to Q.47) 02	01 (Skip to Q.47) 02
% 01 02	11 % 01 02	% 01 02
01 02 03 04 05 06 07 08 09 (Skip to Q.39) 10	01 02 03 04 05 06 07 08 09 (Skip to Q.39) 10	01 02 03 04 05 06 07 08 09 (Skip to Q.39) 10

QUESTIONNAIRE GB	HAZARDOUS WASTE CHARACTERIZATION	PAGE 3
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Question	Hazardous Waste No. PA 16	Hazardous Waste No. 17
34. Describe the waste minimization practices that were implemented PRIOR TO 1986 for this hazardous waste.		
35. What effect did the waste minimization practices implemented PRIOR TO 1986 have on the quantity generated of this hazardous waste? (Circle one)		
Increase in the quantity generated	01	01
Decrease in the quantity generated	02	02
No effect on the quantity generated	03	03
36. What effect did the waste minimization practices implemented PRIOR TO 1986 have on the toxicity of this hazardous waste? (Circle one)		
Increase in the concentration of hazardous constituents	01	01
Decrease in the concentration of hazardous constituents	02	02
No effect on the concentration of hazardous constituents	03	03
37. What hazardous constituents were eliminated from this hazardous waste as a result of waste minimization practices implemented PRIOR TO 1986? (If no hazardous constituents were eliminated from this hazardous waste, enter "NA.")		
38. What hazardous constituents were added to this hazardous waste as a result of waste minimization practices implemented PRIOR TO 1986? (If no hazardous constituents were added to this hazardous waste, enter "NA.")		

[illegible]

Question	Hazardous Waste No. 6 <i>PA</i>	Hazardous Waste No. 7 <i>Asbestos</i>
39. Were any of the following waste minimization practices implemented DURING 1986 for the process(es) that generate this hazardous waste? <i>(Circle all that apply)</i>		
Equipment or technology modification/substitution	01	01
Process or procedure modification/substitution (including closed-loop recycling)	02	02
Reformulation or redesign of product	03	03
Modification/substitution of input or raw material	04	04
Better housekeeping, better operating practices	05	05
Waste stream segregation	06	06
Onsite recycling or recovery for reuse	07	07
Offsite recycling or recovery for reuse	08	08
None <i>(Circle 09 and skip to Question 45 for this hazardous waste)</i>	09 <i>(Skip to Q.45)</i>	09 <i>(Skip to Q.45)</i>
Other <i>(specify)</i>	10	10
	<i>(specify)</i>	<i>(specify)</i>
40. Describe the waste minimization practices that were implemented for this hazardous waste DURING 1986 including the effect these practices had on the volume generated and toxicity of this hazardous waste. Indicate if changes in product production account for changes in waste volume.		<i>Substitution</i> <i>Non-Asbestos Gaskets for Asbestos Gaskets</i>
41. What effect did the waste minimization practices implemented DURING 1986 have on the quantity generated of this hazardous waste? <i>(Circle one)</i>		
Increase in the quantity generated	01	01
Decrease in the quantity generated	02	02
No effect on the quantity generated	03	03

Hazardous Waste No. 48	Hazardous Waste No. 49 <i>BLD VENT DUST</i>	Hazardous Waste No. 5
01 02 03 04 05 06 07 08 09 (Skip to Q.45) 10 _____ (specify) _____ _____ _____ _____ _____	01 02 03 04 05 06 07 08 09 (Skip to Q.45) 10 _____ (specify) _____ _____ _____ _____ _____	01 02 03 04 05 06 07 08 09 (Skip to Q.45) 10 _____ (specify) _____ _____ _____ _____ _____
01 02 03	01 02 03	01 02 03

Question	Hazardous Waste No. PA 46	Hazardous Waste No. 7														
42. What effect did the waste minimization practices implemented DURING 1986 have on the toxicity of this hazardous waste? (Circle one) Increase in the concentration of hazardous constituents Decrease in the concentration of hazardous constituents No effect on the concentration of hazardous constituents	01 02 03	01 02 03														
43. What hazardous constituents were eliminated from this hazardous waste as a result of waste minimization practices implemented DURING 1986? (If no hazardous constituents were eliminated from this hazardous waste, enter "NA.")																
44. What hazardous constituents were added to this hazardous waste as a result of waste minimization practices implemented DURING 1986? (If no hazardous constituents were added to this hazardous waste, enter "NA.")																
45. What quantity of this hazardous waste went to recycling/recovery for reuse processes ONSITE during 1986? (Enter the quantity and circle a unit of measure; if none, enter zero.) a. Quantity b. Unit of measure (Circle one) Tons Gallons	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></tr></table> 01 02							0	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></tr></table> 01 02							0
						0										
						0										
46. What quantity of this hazardous waste was SHIPPED OFFSITE for recycling/recovery for reuse during 1986? (Enter the quantity and circle a unit of measure; if none, enter zero.) a. Quantity b. Unit of measure (Circle one) Tons Gallons	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></tr></table> 01 02							0	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td></tr></table> 01 02							0
						0										
						0										

NOTE: If your facility generated more than five different hazardous wastes during 1986, call the Survey Helpline (1-800-635-8850) to receive additional Questionnaire(s) GB and complete Questions 1 to 5 for EACH hazardous waste.

Hazardous Waste No. 3 <i>APR SLUDGS</i>	Hazardous Waste No. 9 <i>BLP VENT DUST</i>	Hazardous Waste No. 5
..... 01	 01	 01
..... 02	 02	 02
..... 03	 03	 03
0	0	
..... 01	 01	 01
..... 02	 02	 02
0	0	
..... 01	 01	 01
..... 02	 02	 02

Name:

[illegible][illegible]

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Area Code

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(Go to Question b)

- 02 No (Go to Question c)**

- [illegible]

[illegible]

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(Go to note at bottom of page)

If you have not completed all the necessary questionnaires, go to the next questionnaire. If you have any questions about this or the other questionnaires used in this survey, call the Survey Helpline (1-800-635-8850).

Question Number(s)

Notes, comments, etc.

**Question
Number(s)**

Notes, comments, etc.

QUESTIONNAIRE GB	HAZARDOUS WASTE CHARACTERIZATION
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EPA Use Only

- 1. ☐
- 2. ☐
- 3. ☐
- 4. ☐
- 5. ☐
- 6. ☐
- 7. ☐
- 8. ☐
- 9. ☐
- 10. ☐
- 11. ☐
- 12. ☐
- 13. ☐
- 14. ☐
- 15. ☐
- 16. ☐
- 17. ☐
- 18. ☐
- 19. ☐

- 20. ☐
- 21. ☐
- 22. ☐
- 23. ☐
- 24. ☐
- 25. ☐
- 26. ☐
- 27. ☐
- 28. ☐
- 29. ☐
- 30. ☐
- 31. ☐
- 32. ☐
- 33. ☐
- 34. ☐
- 35. ☐
- 36. ☐
- 37. ☐
- 38. ☐

- 39. ☐
- 40. ☐
- 41. ☐
- 42. ☐
- 43. ☐
- 44. ☐
- 45. ☐
- 46. ☐
- 47. ☐

WASTE SOURCE CODES/OFFSITE MANAGEMENT CODES

The Waste Source Codes describe the processes that generate hazardous waste. The Offsite Management Codes describe the management operations hazardous waste goes through offsite.

WASTE SOURCE CODES

Surface Preparation Processes (Cleaning/Degreasing)

- S01 Stripping
- S02 Vapor degreasing
- S03 Steam cleaning
- S04 Dip rinsing
- S05 Flush rinsing
- S06 Spray rinsing
- S07 Fill and gravity draining
- S08 Backflush rinsing
- S09 Physical scraping/removal
- S10 Pickling
- S11 Caustic (alkali) cleaning
- S12 Other cleaning/degreasing process
(specify in the answer space
provided)

Other Waste Production Processes

- S13 Light ends condensation
- S14 Heavy ends/still bottoms removal
- S15 Reaction/synthesis media processing
- S16 Crystallization
- S17 Slag removal
- S18 Tank bottoms removal
- S19 Molding/forming
- S20 By-product processing
- S21 Polymerization
- S22 Electroplating
- S23 Electrolysis of aqueous solutions
- S24 High temperature metal refining
- S25 Fermentation and other biological
processes
- S26 Pyrolysis (thermal decomposition
without enough oxygen for
combustion, such as "cracking")
- S27 Solvent extraction (organic and/or
inorganic)

- S28 Distillation and fractionation
- S29 Size reduction (e.g., screening,
milling, shredding)
- S30 Materials handling
- S31 Halogenation
- S32 Hydrogenation
- S33 Nitration
- S34 Oxidation (other than combustion)
- S35 Calcination
- S36 Esterification
- S37 Sulfonation
- S38 Inorganic aqueous reactions
- S39 Gas adsorption
- S40 Filtration/centrifuging
- S41 Combustion processes
- S42 Extrusion/wet spinning
- S43 Surface coating (e.g., painting,
electroless plating, phosphating)
- S44 Product rinsing
- S45 Decantation/sedimentation
- S46 Air and steam stripping
- S47 Laboratory wastes
- S48 Other waste production process
(specify in the answer space
provided)

One-Time Processes

- S49 Discarding of off-spec material
- S50 Discarding of out-of-date products or
chemicals
- S51 Cleanup of spill residues
- S52 Discarding of contaminated cleanup
equipment
- S53 Accidental spills or discharges
- S54 Other remedial action/cleanup
(specify in the space provided)
- S55 Other one-time process (specify in
the answer space provided)

Clean Out or Closure Processes

- S56 Clean out of surface impoundments
- S57 Closure of surface impoundments
- S58 Clean out of waste piles
- S59 Closure of waste piles
- S60 Clean out of process equipment
- S61 Closure of process equipment
- S62 Other clean out or closure process
(specify in the answer space
provided)

Pollution Control or Waste Treatment Processes

- S63 Flue gas desulfurization
- S64 Caustic scrubbing
- S65 Electrostatic precipitation
- S66 Condensate from VOC removal
- S67 Filtering/screening
- S68 Dewatering
- S69 Regenerating
- S70 Quench cooling
- S71 Centrifugation
- S72 Incineration
- S73 Wastewater treatment
- S74 Distillation
- S75 Flotation or skimming
- S76 Decantation or settling/clarification
- S77 Other pollution control or waste
treatment process (specify in the
answer space provided)

Other Processes

- S78 Other process (specify in the answer
space provided)

OFFSITE MANAGEMENT CODES

- M01 Incineration
- M02 Reused as fuel
- M03 Fuel blending
- M04 Solidification/stabilization
- M05 Solvent or liquid organic recovery for
reuse
- M06 Metals recovery for reuse
- M07 Wastewater treatment in tank

- M08 Wastewater treatment in surface
impoundment
- M09 Wastewater treatment in unknown
equipment type
- M10 Other treatment/recovery
- M11 Storage/treatment in waste pile
- M12 Storage/disposal in surface
impoundment

- M13 Landfill
- M14 Land treatment
- M15 Underground injection
- M16 Discharge to POTW
- M17 Discharge under NPDES permit
- M18 Other
- M19 Unknown