

Trends Analysis for NPEP Priority Chemicals not reportable to TRI

Not all the NPEP Priority Chemicals have TRI data. For these NPEP Priority Chemicals (see Exhibit 109), we obtained data from the 1997, 1999, and 2001 Biennial Reports for hazardous wastes to use for trends analyses.

Exhibit 109. The NPEP Priority Chemicals Not Reported to TRI

NPEP PRIORITY CHEMICALS NOT REPORTED TO TRI	
Acenaphthene	Fluorene
Acenaphthylene	Heptachlor epoxide (see Heptachlor above)
4-Bromophenyl phenyl ether	Pyrene
Endosulfan, beta-/Endosulfan, alpha	1,2,4,5-Tetrachlorobenzene

Acenaphthene

Chemical Information

Acenaphthene looks like a white crystal-like solid.

CAS Number - 83-32-9

Alternate Names - 1,2-dihydroacenaphthene, 1,2-dihydroacenaphthylene, 1,8-ethylenenaphthalene, ethylene naphthalene, naphthyleneethylene, peri-ethylenenaphthalene

General Uses - This chemical is used to make dyes, plastics and pesticides.

Potential Hazards - This chemical is harmful by inhalation, ingestion or skin absorption. It emits toxic fumes of carbon monoxide and carbon dioxide when heated to decomposition.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 192 shows the total quantity (pounds) of acenaphthene reported in 1997, 1999 and 2001. The waste codes associated with acenaphthene are—F032, F034, F037, F039, K035, K051, and K088. The quantity of hazardous waste stream(s) that may contain acenaphthene decreased by 22 percent from 1997 to 2001.

Exhibit 192. National-Level Information for Acenaphthene

Chemical	1997	1999	2001	% change
Acenaphthene	15,116,384,296	21,343,250,733	2,547,306,417	-83.1

EPA Region Information

Exhibit 193 shows the quantity (pounds) of acenaphthene reported in 1997, 1999 and 2001 for each EPA region. Regions 2, 5, and 6 accounted for approximately 81 percent of the total quantity.

Exhibit 193. Regional-Level Information for Acenaphthene

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	94,128	2,784,122	13,471	0.0	-85.7
2	110,612,837	600,113,374	1,008,732,703	39.6	811.9
3	83,385,090	63,247,756	70,551,276	2.8	-15.4
4	1,703,318,208	565,547,749	202,872,517	8.0	-88.1
5	909,888,007	638,884,834	282,919,146	11.1	-68.9
6	507,711,534	1,149,784,698	785,436,529	30.8	54.7
7	233,591,691	202,134,773	28,665,353	1.1	-87.7
8	47,347,051	50,276,780	15,620,143	0.6	-67.0
9	11,520,329,587	18,066,060,424	129,775,538	5.1	-98.9
10	106,164	4,416,223	22,719,741	0.9	21300.7
TOTAL	15,116,384,296	21,343,250,733	2,547,306,417	100.0	

State Information

Exhibit 194 shows the total quantity (pounds) of acenaphthene reported in 1997, 1999 and 2001 for each state that had more than 1 percent of the total 2001 quantity. New York and Arkansas together accounted for almost 56 percent of this total.

Exhibit 194. State-Level Information for Acenaphthene

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
NY	54,621,261	450,991,216	909,290,889	37.7	1,564.7
AR	80,618,352	737,043,104	439,572,856	18.2	445.3
TX	292,662,503	301,259,467	210,405,875	8.7	-28.1
IN	756,841,879	474,388,937	145,375,936	6.0	-80.8
LA	117,846,327	97,543,654	125,431,397	5.2	6.4
NJ	53,961,954	140,843,406	99,058,895	4.1	83.6
AL	102,964,550	131,263,180	83,286,315	3.5	-19.1
AZ	141,720	81,019,245	75,043,105	3.1	5,2851.7
IL	77,593,706	58,247,241	62,873,994	2.6	-19.0
OH	28,544,303	82,394,038	61,197,706	2.5	114.4
CA	11,514,747,915	17,984,725,231	54,635,263	2.3	-99.5
MS	52,415,025	58,376,569	49,794,827	2.1	-5.0
VA	39,627,736	32,213,884	48,544,563	2.0	22.5
KY	42,639,751	52,232,629	45,541,178	1.9	6.8

Industry Sector (SIC Code) Information

Exhibit 195 shows the total quantity (pounds) of acenaphthene reported in 1997, 1999 and 2001 for each industry sector (NAICS code) representing over 1 percent of the 2001 total quantity. NAICS codes 331312 and 321114 accounted for over 62 percent of this total.

Exhibit 195. Industry Sector-Level Information for Acenaphthene

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
331312	Primary Aluminum Production	101,093,879	497,061,528	987,043,207	40.0	876.4
321114	Wood Preservation	1,750,841,521	1,270,494,838	551,762,508	22.4	-68.5
562211	Hazardous Waste Treatment and Disposal	0	0	543,401,952	22.0	-----
32411	Petroleum Refineries	12,653,348,273	18,692,770,750	314,085,635	12.7	-97.5
3211	Flat Glass	0	0	47,870,891	1.9	-----
56292	Materials Recovery Facilities	0	0	24,449,987	1.0	-----

Acenaphthylene

Chemical Information

Acenaphthylene is one of a group of chemicals called polycyclic aromatic hydrocarbons, PAHs for short. PAHs are solid and range in appearance from colorless to white or pale yellow-green.

CAS Number - 208-96-8

Alternate Names - 1,2-dehydroacenaphthalene

General Uses - This chemical is used to make dyes, plastics and pesticides.

Potential Hazards - Many PAHs have caused tumors in laboratory animals that were exposed to the chemicals through their food, from breathing contaminated air and when it was applied to their skin. However, these effects have not been seen in humans.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 196 shows the total quantity (pounds) of acenaphthylene reported in 1997, 1999 and 2001. The waste codes associated with acenaphthylene are—F039 and K087. The quantity of hazardous waste stream(s) that may contain acenaphthylene decreased by approximately 58 percent from 1997 to 2001.

Exhibit 196. National-Level Information for Acenaphthylene

Chemical	1997	1999	2001	% change
Acenaphthylene	21,354,292	54,433,807	8,888,486	-58.4

EPA Region Information

Exhibit 197 shows the quantity (pounds) of hazardous waste stream(s) that may contain acenaphthylene reported in 1997, 1999 and 2001 for each EPA region. Regions 3, 5, and 7 had the largest quantities in 2001.

Exhibit 197. Regional-Level Information for Acenaphthylene

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	0	82,960	0	0.0	---
2	0	22,114,053	31,060	0.3	---
3	5,478,911	2,741,569	2,233,687	25.1	-59.2
4	2,878,092	688,958	597,109	6.7	-79.3
5	5,064,904	22,055,868	2,047,740	23.0	-59.6
6	0	2,255,244	289,562	3.3	---
7	7,932,385	3,403,412	2,850,926	32.1	-64.1
8	0	967,711	838,201	9.4	---
9	0	123,968	0	0.0	---
10	0	64	201	0.0	---
TOTAL	21,354,292	54,433,807	8,888,486	100.0	

State Information

Exhibit 198 shows the total quantity (pounds) of hazardous waste stream(s) that may contain acenaphthylene reported in 1997, 1999 and 2001 for each state that had more than 1 percent of the 2001 total quantity. Kansas accounted for approximately 32 percent of this total and Pennsylvania almost 26 percent.

Exhibit 198. State-Level Information for Acenaphthylene

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
KS	7,851,711	3,174,893	2,806,885	32.4	-64.3
PA	1,447,290	2,150,924	2,212,507	25.6	52.9
MI	0	251,279	1,281,938	14.8	-----
UT	0	967,711	833,650	9.6	-----
OH	4,773,026	16,127,974	678,691	7.8	-85.8
KY	1,392,290	280,925	551,040	6.4	-60.4
AR	0	0	285,538	3.3	-----

Industry Sector (NAICS Code) Information

Exhibit 199 shows the total quantity (pounds) of hazardous waste stream(s) that may contain acenaphthylene reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that accounted for over 1 percent of the 2001 total quantity. The NAICS codes 562211 and 56221 accounted for approximately 66 percent of this total.

Exhibit 199. Industry Sector-Level Information for Acenaphthylene

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
562211	Hazardous Waste Treatment and Disposal	0	0	4,666,906	52.5	-----
56221	Hazardous Waste Treatment and Disposal	0	0	1,253,691	14.1	-----
32419	Petroleum Lubricating Oil and Grease Manufacturing	0	0	1,080,180	12.2	-----
56291	Remediation Services	0	0	875,008	9.8	-----
331111	Iron and Steel Mills	2,937,328	4,844,628	637,631	7.2	-78.3

4-Bromophenyl phenyl ether

Chemical Information

4-Bromophenyl phenyl ether is found in liquid form. No other information about its appearance is available.

CAS Number - 101-55-3

Alternate Names - 1-bromo-4-phenoxybenzene, 4-bromodiphenyl ether, p-bromodiphenyl ether, 4-bromophenoxybenzene, 4-bromophenyl phenyl ether

General Uses - This chemical is primarily used for research purposes. In the past it was used as a flame retardant.

Potential Hazards - This chemical is combustible. Fires involving this chemical should be extinguished with dry chemical, carbon dioxide, and/or halon extinguishers.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 200 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 4-bromophenyl phenyl ether reported in 1997, 1999 and 2001. The waste code associated with 4-bromophenyl phenyl ether was—U030. The quantity of hazardous waste stream(s) that may contain 4-bromophenyl phenyl ether increased by about 460 percent from 1997 to 2001.

Exhibit 200. National-Level Information for 4-Bromophenyl phenyl ether

Chemical	1997	1999	2001	% change
4-Bromophenyl phenyl ether	4,788,718	31,966,160	26,829,933	460.3

EPA Region Information

Exhibit 201 shows the quantity (pounds) of hazardous waste stream(s) that may contain 4-bromophenyl phenyl ether reported in 1997, 1999 and 2001 for each EPA region. Region 6 had over 91 percent of this total.

Exhibit 201. Regional-Level Information for 4-Bromophenyl phenyl ether

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	0	82,960	0	0.0	---
2	0	22,114,078	31,895	0.1	---
3	286,238	13	0	0.0	-100.0
4	170,811	191,533	33,642	0.1	-80.3
5	3,915,054	4,845,006	653,631	2.4	-83.3
6	60,798	2,314,790	24,560,334	91.5	40,296.4
7	355,675	497,491	329,282	1.2	-7.4
8	0	1,010,694	701,584	2.6	---
9	121	909,594	519,564	1.9	429,291.5
10	21	0	0	0.0	-100.0
TOTAL	4,788,718	31,966,160	26,829,933	100.0	

State Information

Exhibit 202 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 4-bromophenyl phenyl ether reported in 1997, 1999 and 2001 for each state that had over 1 percent of the 2001 total quantity; however, Texas had approximately 91 percent of this quantity.

Exhibit 202. State-Level Information for 4-Bromophenyl phenyl ether

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
TX	0	0	24,213,411	90.8	-----
UT	0	1,010,694	697,362	2.6	-----
OH	3,914,274	839,024	653,631	2.5	-83.3
CA	121	908,753	519,564	1.9	429,291.5
AR	20,000	0	288,654	1.1	1,343.3
NE	47,841	221,115	285,240	1.1	496.2

Industry Sector (NAICS Code) Information

Exhibit 203 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 4-bromophenyl phenyl ether reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that accounted for over 1 percent of the 2001 total quantity. NAICS code 325211 alone was associated with approximately 91 percent of this total.

Exhibit 203. Industry Sector-Level Information for 4-Bromophenyl phenyl ether

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
325211	Plastics Material and Resin Manufacturing	0	0	24,213,411	90.6	-----
562211	Hazardous Waste Treatment and Disposal	0	0	1,990,431	7.4	-----
54199	All Other Professional, Scientific, and Technical Services	0	0	519,564	1.9	-----

Endosulfan, beta-/Endosulfan, alpha

Chemical Information

Endosulfan looks like a brown-colored crystal and has an odor like turpentine.

Alpha CAS Number - 959-98-8, **Beta CAS Number** - 33213-65-9

Alternate Names - hexachloro-5-norbornene-2,3-dimethanol, cyclic sulfite

General Uses - This chemical is used as an insecticide on crops. It has not been produced in the United States since 1982, but it has been used to make other chemicals.

Potential Hazards - Breathing, eating or drinking high doses of endosulfan may cause convulsions and death.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 204 shows the total quantity (pounds) of hazardous waste stream(s) that may contain endosulfan reported in 1997, 1999 and 2001. The waste code associated with endosulfan was—P050. The quantity of hazardous waste stream(s) that may contain endosulfan decreased by about 77 percent from 1997 to 2001.

Exhibit 204. National-Level Information for Endosulfan

Chemical	1997	1999	2001	% change
Endosulfan, beta- Endosulfan, alpha	15,142,070	48,689,868	3,403,371	-77.5

EPA Region Information

Exhibit 205 shows the quantity (pounds) of hazardous waste stream(s) that may contain endosulfan reported in 1997, 1999 and 2001 for each EPA region. Region 4 had over 1 million pounds of this total to account for approximately one-third of the total quantity.

Exhibit 205. Regional-Level Information for Endosulfan

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	3,504	97,115	1,286	0.0	-63.3
2	4,300	37,905,335	32,275	0.9	650.6
3	1,345	2,082	150	0.0	-88.8
4	13,457,099	1,018,233	1,014,043	29.8	-92.5
5	881,987	5,304,594	670,956	19.7	-23.9
6	42,643	2,477,621	740,893	21.8	1637.4
7	683,183	745,358	105,745	3.1	-84.5
8	250	1,010,719	801,329	23.5	320175.4
9	66,228	128,746	33,700	1.0	-49.1
10	1,530	64	2,994	0.1	95.7
TOTAL	15,142,070	48,689,868	3,403,371	100.0	

State Information

Exhibit 206 shows the total quantity (pounds) of hazardous waste stream(s) that may contain endosulfan reported in 1997, 1999 and 2001 for each state that accounted for over 1 percent of the 2001 total quantity. Utah, Florida, and Louisiana, and Ohio, each had approximately 20 percent of this total, collectively accounting for 88 percent of the total quantity.

Exhibit 206. State-Level Information for Endosulfan

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
UT	0	1,010,708	794,604	24.3	-----
FL	13,217,452	751,707	754,238	23.1	-94.3
LA	0	2,462,927	672,363	20.6	-----
OH	797,765	1,694,614	654,742	20.0	-17.9
GA	162,582	247,965	243,654	7.4	49.9
TX	1,320	0	67,680	2.1	5,027.3
MO	16,248	0	43,526	1.3	167.9
KS	328,478	465,982	41,032	1.3	-87.5

Industry Sector (NAICS Code) Information

Exhibit 207 shows the total quantity (pounds) of hazardous waste stream(s) that may contain endosulfan reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that make up more than 1 percent of the total 2001 quantity. The NAICS codes 32532 and 562211 accounted for over 95 percent of the total quantity.

Exhibit 207. Industry Sector-Level Information for Endosulfan

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
32532	Pesticide and Other Agricultural Chemical Manufacturing	13,161,495	1,347,712	1,645,007	48.3	-87.5
562211	Hazardous Waste Treatment and Disposal	0	0	1,601,719	47.1	-----
325188	All Other Basic Inorganic Chemical Manufacturing	0	54,718	52,617	1.5	-----
212312	Crushed and Broken Limestone Mining and Quarrying	0	0	43,526	1.3	-----

Fluorene

Chemical Information

Fluorene is one of a group of chemicals called polycyclic aromatic hydrocarbons, PAHs for short. PAHs are solid and range in appearance from colorless to white or pale yellow-green.

CAS Number - 86-73-7

Alternate Names - 2,2'-methylenebiphenyl, 2,3-benzindene, o-biphenylenemethane, 9H-fluorene, alpha-diphenylenemethane-9H-fluorene, diphenylenemethane

General Uses - This chemical is used to make dyes, plastics and pesticides.

Potential Hazards - This chemical is not very flammable but any fire involving this compound may produce dangerous vapors.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 208 shows the total quantity (pounds) of hazardous waste stream(s) that may contain fluorene reported in 1997, 1999 and 2001. The waste code associated with fluorene was—U005. The quantity of hazardous waste stream(s) that may contain fluorene decreased by 58 percent from 1997 to 2001.

Exhibit 208. National-Level Information for Fluorene

Chemical	1997	1999	2001	% change
Fluorene	36,038,912	34,553,897	15,147,127	-58.0

EPA Region Information

Exhibit 209 shows the quantity (pounds) of hazardous waste stream(s) that may contain fluorene reported in 1997, 1999 and 2001 for each EPA region. Regions 4, 5, and 6 accounted for 4.9 million, 1.5 million, and 7.4 million, respectively, of the approximately 15 million pounds associated with 2001.

Exhibit 209. Regional-Level Information for Fluorene

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	0	82,960	695	0.0	---
2	33,873,458	22,114,053	33,223	0.2	-99.9
3	0	41,893	0	0.0	---
4	312,422	1,630,309	4,886,554	32.3	1,464.1
5	1,425,783	6,832,539	1,495,899	9.9	4.9
6	40,940	2,317,246	7,386,667	48.8	17,942.6
7	386,289	493,398	332,644	2.2	-13.9
8	0	1,040,280	798,332	5.3	---
9	0	1,154	212,913	1.4	---
10	21	64	201	0.0	866.7
TOTAL	36,038,912	34,553,897	15,147,127	100.0	

State Information

Exhibit 210 shows the total quantity (pounds) of hazardous waste stream(s) that may contain fluorene reported in 1997, 1999 and 2001 for each state that had more than 1 percent of the 2001 total quantity. Texas and North Carolina together accounted for almost 80 percent of this total.

Exhibit 210. State-Level Information for Fluorene

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
TX	0	0	6,983,960	46.8	-----
NC	0	716,310	4,875,674	32.6	-----
IN	0	5,292,182	829,875	5.6	-----
UT	0	1,040,280	794,110	5.3	-----
OH	1,425,783	1,535,394	666,024	4.5	-53.3
AR	0	0	288,728	1.9	-----
NE	43,349	217,021	282,703	1.9	552.2
CA	0	0	212,913	1.4	-----

Industry Sector (NAICS Code) Information

Exhibit 211 shows the total quantity (pounds) of hazardous waste stream(s) that may contain fluorene reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that accounted for more than 1 percent of the 2001 total quantity. Two NAICS codes 48832 and 562211 accounted for over 90 percent of this total.

Exhibit 211. Industry Sector-Level Information for Fluorene

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
48832	Marine Cargo Handling	0	0	6,983,960	46.1	-----
562211	Hazardous Waste Treatment and Disposal	0	0	6,952,210	45.9	-----
325411	Medicinal and Botanical Manufacturing	0	1,286,200	830,131	5.5	-----
54199	All Other Professional, Scientific, and Technical Services	0	0	212,913	1.4	-----

Pyrene

Chemical Information

Pyrene is colorless crystal-like solid but can also look yellow.

CAS Number - 129-00-0

Alternate Names - benzo[def]phenanthrene, beta-pyrene

General Uses - This chemical is used to make dyes, plastics and pesticides. It is also used to make benzo(a)pyrene.

Potential Hazards - This chemical is toxic if absorbed through the skin. It emits acrid smoke and fumes when heated to decomposition.

National-Level Chemical Information

Exhibit 212 shows the total quantity (pounds) of hazardous waste stream(s) that may contain pyrene reported in 1997, 1999 and 2001. The waste codes associated with pyrene are—F032, F034, F037, F038, F039, K001, K035, K048, K049, K051, K088, K169, K170, K171, and U051. The quantity of hazardous waste stream(s) that may contain pyrene decreased by about 81 percent from 1997 to 2001.

Exhibit 212. National-Level Information for Pyrene

Chemical	1997	1999	2001	% change
Pyrene	17,983,637,599	24,020,567,561	3,486,552,570	-80.6

EPA Region Information

Exhibit 213 shows the quantity (pounds) of hazardous waste stream(s) that may contain pyrene reported in 1997, 1999 and 2001 for each EPA region. Regions 2, 6, and 5 had almost 75 percent of the total quantity in 2001.

Exhibit 213. Regional-Level Information for Pyrene

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	911,209	6,426,813	74,614	0.0	-91.8
2	165,525,872	946,157,473	1,020,436,972	29.3	516.5
3	98,899,433	79,764,363	83,550,056	2.4	-15.5
4	1,979,554,980	805,712,514	295,731,653	8.5	-85.1
5	1,899,512,551	1,699,010,267	581,822,153	16.7	-69.4
6	1,414,090,059	1,456,855,714	999,205,679	28.7	-29.3
7	275,127,893	234,713,442	70,305,390	2.0	-74.4
8	627,284,222	553,868,500	96,920,219	2.8	-84.5
9	11,522,623,375	18,233,405,730	308,189,276	8.8	-97.3
10	108,005	4,652,747	30,316,556	0.9	27969.7
TOTAL	17,983,637,599	24,020,567,561	3,486,552,570	100.0	

State Information

Exhibit 214 shows the total quantity (pounds) of hazardous waste stream(s) that may contain pyrene reported in 1997, 1999 and 2001 for each state that accounted for over 1 percent of the total 2001 quantity. New York and Arkansas had approximately 43 percent of this total.

Exhibit 214. State-Level Information for Pyrene

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
NY	88,520,281	595,153,870	909,652,647	27.6	927.6
AR	82,653,570	752,401,421	517,417,884	15.7	526.0
IN	1,669,677,360	1,355,850,274	320,445,639	9.7	-80.8
TX	1,132,517,432	524,413,452	283,101,121	8.6	-75.0
LA	179,972,575	155,818,331	185,111,846	5.6	2.9
AZ	141,720	182,098,999	168,835,456	5.1	119,033.1
OH	67,686,283	177,405,198	144,118,614	4.4	112.9
CA	11,516,927,888	18,050,990,021	139,048,358	4.2	-98.8
AL	238,903,699	318,458,863	127,953,224	3.9	-46.4
NJ	74,320,703	324,531,864	107,027,739	3.2	44.0
IL	109,927,118	102,521,432	89,428,449	2.7	-18.6
WY	577,103,722	496,980,152	75,021,139	2.3	-87.0
KY	56,106,577	68,669,196	71,873,154	2.2	28.1
MS	63,927,786	60,027,461	64,965,061	2.0	1.6
VA	39,701,936	36,500,972	49,136,030	1.5	23.8
KS	56,762,377	73,487,445	44,583,942	1.4	-21.5

Industry Sector (NAICS Code) Information

Exhibit 215 shows the total quantity (pounds) of hazardous waste stream(s) that may contain pyrene reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that accounted for more than 1 percent of the 2001 total quantity. NACIS codes 331312 and 562211 accounted for approximately 52 percent of this total.

Exhibit 215. Industry Sector-Level Information for Pyrene

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
331312	Primary Aluminum Production	101,093,879	497,061,528	987,043,207	28.3	876.4
562211	Hazardous Waste Treatment and Disposal	0	0	849,849,041	24.4	-----
32411	Petroleum Refineries	14,555,847,097	19,993,514,154	753,794,083	21.6	-94.8
321114	Wood Preservation	1,862,825,338	1,595,172,587	554,996,202	15.9	-70.2
56292	Materials Recovery Facilities	0	0	74,614,426	2.1	-----
482111	Line-Haul Railroads	575,682,012	510,027,125	70,622,471	2.0	-87.7
3211	Flat Glass	0	0	47,870,891	1.4	-----

1,2,4,5-Tetrachlorobenzene

Chemical Information

1,2,4,5-Tetrachlorobenzene is an odorless man-made substance that can range in appearance from a colorless crystal to a white flaky or chunky solid.

CAS Number - 95-94-3

Alternate Names - benzene tetrachloride, s-tetrachlorobenzene

General Uses - This chemical is used as an intermediate or building block to make herbicides, insecticides and defoliants. It is also used to make other chemicals such as 2,4,5-trichlorophenol and 2,4,5-trichlorophenoxyacetic acid.

Potential Hazards - Exposure to this chemical can cause eye and skin irritation and can affect ones ability to breathe.

Biennial Report (BR) Data

National-Level Chemical Information

Exhibit 216 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 1,2,4,5-tetrachlorobenzene reported in 1997, 1999 and 2001 . The waste codes associated with 1,2,4,5-tetrachlorobenzene are—U207, F024, F025, K042, K085, K149, K150, and K151. The quantity of hazardous waste stream(s) that may contain 1,2,4,5-tetrachlorobenzene decreased by about 45 percent from 1997 to 2001.

Exhibit 216. National-Level Information for 1,2,4,5-Tetrachlorobenzene

Chemical	1997	1999	2001	% change
1,2,4,5-Tetrachlorobenzene	4,259,652,044	4,934,532,484	2,364,333,600	-44.5

EPA Region Information

Exhibit 217 shows the quantity (pounds) of hazardous waste stream(s) that may contain 1,2,4,5-tetrachlorobenzene reported in 1997, 1999 and 2001 for each EPA region. Regions 6 and 7 had the largest quantities, accounting for about 85 percent of the total quantity in 2001.

Exhibit 217. Regional-Level Information for 1,2,4,5-Tetrachlorobenzene

Region	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
1	5,446,390	360,157	1,023	0.0	-100.0
2	382,496,572	552,621,174	310,023,393	13.1	-18.9
3	649,914	2,915,387	1,666,780	0.1	156.5
4	5,988,600	1,037,350,166	2,757,532	0.1	-54.0
5	15,164,669	22,183,423	10,081,640	0.4	-33.5
6	3,096,816,782	2,282,612,394	990,036,888	41.9	-68.0
7	752,651,383	1,029,964,015	1,043,865,395	44.2	38.7
8	3,181	6,289,422	4,726,274	0.2	148,486.7
9	58,928	236,214	1,174,274	0.0	1,892.7
10	375,626	132	402	0.0	-99.9
TOTAL	4,259,652,044	4,934,532,484	2,364,333,600	100.0	

State Information

Exhibit 218 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 1,2,4,5-tetrachlorobenzene reported in 1997, 1999 and 2001 for each state comprising more than 1 percent of the 2001 total quantity. Only four states had over 1 percent—Kansas, Louisiana, New York, and Texas. Kansas and Louisiana together had approximately 80 percent of the total quantity.

Exhibit 218. State-Level Information for 1,2,4,5-Tetrachlorobenzene

State	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
KS	751,687,443	1,028,018,561	1,042,944,633	44.5	38.7
LA	1,585,575,423	817,280,578	836,884,403	35.7	-47.2
NY	372,821,715	375,671,604	309,668,184	13.2	-16.9
TX	1,511,240,157	1,463,778,467	151,888,143	6.5	-89.9

Industry Sector (NAICS Code) Information

Exhibit 219 shows the total quantity (pounds) of hazardous waste stream(s) that may contain 1,2,4,5-tetrachlorobenzene reported in 1997, 1999 and 2001 for each industry sector (NAICS code) that accounts for more than 1 percent of the 2001 total quantity. NAICS codes 325181 and 42261 accounted for almost 90 of this total.

Exhibit 219. Industry Sector-Level Information for 1,2,4,5-Tetrachlorobenzene

NAICS	Description	1997	1999	2001	% of Total BR Qty (2001)	% Change (1997-2001)
325181	Alkalies and Chlorine Manufacturing	396,891,667	395,581,928	1,348,433,328	57.1	239.7
42261	Plastics Materials and Basic Forms and Shapes Wholesalers	0	0	785,642,595	33.3	-----
325199	All Other Basic Organic Chemical Manufacturing	0	0	153,950,535	6.5	-----
562211	Hazardous Waste Treatment and Disposal	0	0	42,315,698	1.8	-----
32511	Petrochemical Manufacturing	3,772,137,576	4,254,223,610	30,917,810	1.3	-99.2