

Data Table 4–7, Toxic Air Pollutant Emissions (2009–2013)

Chemical Abstract Service Number (CAS)	Pollutant Name	2009 Estimated Emissions (Tons/Yr)	2010 Estimated Emissions (Tons/Yr)	2011 Estimated Emissions (Tons/Yr)	2012 Estimated Emissions (Tons/Yr)	2013 Estimated Emissions (Tons/Yr)
106-46-7	1,4-DICHLOROBENZENE				1.10E-05	1.10E-05
540-84-1	2,2,4-TRIMETHYLPENTANE				4.80E-08	4.80E-08
88-06-2	2,4,6-TRICHLOROPHENOL				5.00E-10	5.00E-10
100-02-7	4-NITROPHENOL				2.62E-07	2.62E-07
75-07-0	ACETALDEHYDE	1.03E-01	1.49E-01	8.43E-02	4.53E-02	1.56E-02
75-05-8	ACETONITRILE	*	*	2.20E-04	2.20E-04	2.20E-04
98-86-2	ACETOPHENONE			2.67E-01	2.93E-04	1.60E-05
107-02-8	ACROLEIN	3.36E-01	3.60E-01		3.67E-02	9.58E-03
107-13-1	ACRYLONITRILE		*	2.59E-02	2.59E-02	2.59E-02
107-05-1	ALLYL CHLORIDE				1.40E-09	1.40E-09
28182-81-2	ALIPHATIC POLYISOCYANATE	*	*	*	*	*
62-53-3	ANILINE	*	*	1.50E-09	1.50E-09	1.50E-09
7440-36-0	ANTIMONY	1.46E-03	1.46E-03	2.30E-03	2.63E-03	2.30E-03
7440-38-2	ARSENIC	2.23E-03	3.55E-02	1.70E-03	2.88E-04	1.09E-04
71-43-2	BENZENE	3.94E-01	4.99E-01	4.58E-01	2.33E-01	8.83E-02
100-44-7	BENZYL CHLORIDE		5.68E-02	5.71E-02	1.29E-02	1.60E-09
7440-41-7	BERYLLIUM	4.07E-04	2.12E-03	1.70E-09	1.70E-09	1.70E-09
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE		5.93E-03	5.96E-03	1.35E-03	2.42E-07
75-25-2	BROMOFORM	3.16E-03	3.16E-03	3.18E-03	7.18E-04	*
106-99-0	BUTADIENE (1, 3-)	*	*	6.20E-06	6.20E-06	6.20E-06
7440-43-9	CADMIUM	6.60E-04	4.80E-03	4.09E-04	1.19E-04	5.20E-05
75-15-0	CARBON DISULFIDE	1.05E-02	1.05E-02	3.46E-03	5.86E-03	3.46E-03
56-23-5	CARBON TETRACHLORIDE	1.51E-01	1.51E-01	2.30E-01	2.28E-01	6.12E-03
463-58-1	CARBONYL SULFIDE		*	2.28E-03	2.28E-03	2.28E-03
7782-50-5	CHLORINE	6.80E-02	6.80E-02	5.44E-02	7.76E-03	3.46E-03
108-90-7	CHLOROBENZENE	2.78E-03	4.57E-03	8.57E-02	8.41E-02	2.26E-03
67-66-3	CHLOROFORM	1.14E-02	1.62E-02	8.70E-02	8.67E-02	7.92E-04
	CHROMIUM COMPOUNDS (AS Cr ₂ O ₃)	9.56E-03	9.56E-03	2.50E-03	8.03E-03	7.98E-03
7440-48-4	COBALT	8.11E-03	8.11E-03	2.04E-06	1.85E-03	1.93E-06
1319-77-3	CRESOL	*	*	*	*	*
98-82-8	CUMENE		4.30E-04	2.04E-01	1.05E-02	1.04E-02
	CYANIDE COMPOUNDS	2.03E-01	2.03E-01	1.50E-04	4.63E-02	1.50E-04
132-64-9	DIBENZOFURAN				7.40E-10	7.40E-10
84-74-2	DIBUTYL PHTHALATE				7.20E-09	7.20E-09
77-78-1	DIMETHYL SULFATE		3.90E-03	3.92E-03	8.85E-04	*
121-14-2	DINITROTOLUENE (2, 4-)	2.27E-05	2.27E-05	*	5.16E-06	*
123-91-1	DIOXANE	*	*	*	4.51E-02	4.51E-02
141-43-5	ETHANOLAMINE	*	*	*	*	*
100-41-4	ETHYL BENZENE	5.51E-03	1.31E-02	5.31E-02	5.30E-02	5.98E-02
107-211	ETHYLENE GLYCOL (GLYCOL)	*	*	*	*	*
75-00-3	ETHYL CHLORIDE (CHLOROETHANE)		3.41E-03	9.93E-03	7.27E-03	6.50E-03
75-08-1	ETHYL MERCAPTAN		*	1.11E-02	1.11E-02	1.11E-02
106-93-4	ETHYLENE DIBROMIDE				3.67E-05	1.46E-05
107-06-2	ETHYLENE DICHLORIDE		5.69E-03	8.35E-03	4.11E-03	3.21E-03
75-34-3	ETHYLIDENE DICHLORIDE (DICHLOROETHANE (1, 1-))	3.25E-03	5.69E-03	1.84E-02	1.84E-02	1.84E-02
50-00-0	FORMALDEHYDE	4.41E-02	6.41E-02	3.47E-01	8.81E-02	3.40E-02
64-18-6	FORMIC ACID	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01
87-68-3	HEXACHLORO-1,3-BUTADIENE				3.00E-08	3.00E-08
118-74-1	HEXACHLOROBENZENE				1.20E-07	1.20E-07
77-47-4	HEXACHLOROCYCLOPENTADIENE				1.90E-08	1.90E-08
67-72-1	HEXACHLOROETHANE				5.50E-09	5.50E-09
110-54-3	HEXANE	5.44E-03	5.44E-03	9.62E-02	9.75E-02	9.62E-02
302-01-2	HYDRAZINE	*	*	*	*	*
7647-01-0	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	9.74E+01	9.90E+01	1.27E+00	2.23E+01	4.55E-02
74-90-8	HYDROGEN CYANIDE		*	8.10E-03	8.10E-03	8.10E-03
2148-87-8	HYDROGEN SULFIDE	*	*	9.50E-02	9.50E-02	9.50E-02
123-31-9	HYDROQUINONE	*	*	*	*	*
78-59-1	ISOPHORONE	4.71E-02	4.71E-02	*	1.07E-02	*
7439-96-5	MANGANESE	3.98E-02	5.36E-02	1.09E-01	1.47E-02	5.78E-03
7439-97-6	MERCURY	8.26E-02	8.93E-02	2.12E-01	5.76E-02	1.83E-01
67-56-1	METHYL ALCOHOL	*	*	8.13E-02	8.13E-02	*
74-83-9	METHYL BROMIDE		1.42E-02	1.41E-02	3.07E-03	3.57E-05
74-87-3	METHYL CHLORIDE (CHLOROMETHANE)		6.09E-02	4.95E-02	1.46E-02	4.75E-03
71-55-6	METHYL CHLOROFORM (TRICHLOROETHANE (1, 1, 1-))	4.56E-03	6.18E-03	1.02E-02	8.95E-03	7.62E-03
78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	3.16E-02	3.21E-02	1.24E-01	1.33E-01	4.43E-02
108-10-1	METHYL ISOBUTYL KETONE(4-METHYL-2-PENTANONE)	*	*	1.06E-02	1.06E-01	2.43E-02
74-93-1	METHYL MERCAPTAN (METHANETHIOL)		*	9.31E-03	9.31E-03	9.31E-03
80-62-6	METHYL METHACRYLATE	*	*	3.80E-10	3.69E-04	3.80E-10

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1634-04-4	METHYL TERT-BUTYL ETHER	2.84E-03	2.84E-03	*	6.45E-04	*
75-09-2	METHYLENE CHLORIDE	2.45E-02	4.80E-02	1.16E-01	1.05E-01	9.77E-02
60-34-4	METHYLHYDRAZINE		1.38E-02	1.39E-02	3.14E-03	*
91-20-3	NAPHTHALENE	4.62E-03	4.63E-03	3.60E-03	3.51E-03	1.96E-03
7440-02-0	NICKEL	2.27E-02	3.08E-02	7.30E-03	5.33E-03	5.10E-03
1313-99-1	NICKEL OXIDE				1.18E-05	8.20E-14
7697-37-2	NITRIC ACID	9.32E-01	9.32E-01	5.44E-01	2.14E-01	1.63E+02
98-95-3	NITROBENZENE				6.50E-11	6.50E-11
55-63-0	NITROGLYCERINE				7.00E-10	7.00E-10
144-62-7	OXALIC ACID	1.30E-12	1.30E-12	1.64E-12	1.40E-12	1.40E-13
87-86-5	PENTACHLOROPHENOL				3.99E-07	1.22E-07
108-95-2	PHENOL		5.59E-03	4.72E-03	6.96E-04	1.24E-04
7723-14-0	PHOSPHORUS (YELLOW OR WHITE)		2.11E-04	5.20E-04	2.17E-04	3.21E-06
7664-38-2	PHOSPHORIC ACID	*	*	*	*	*
1336-36-3	POLYCHLORINATED BIPHENYLS (AROCLORS)	3.95E-07	3.95E-07	3.95E-07	*	*
	POLYCYCLIC ORGANIC MATTER	3.20E-01	3.22E-01	2.54E-01	3.01E-02	9.05E-03
333-20-0	POTASSIUM THIOCYANATE	*	*	*	*	*
123-38-6	PROPIONALDEHYDE		3.35E-02	3.32E-02	7.27E-03	8.32E-05
78-87-5	PROPYLENE DICHLORIDE		2.78E-03	3.78E-03	1.83E-03	1.65E-03
7782-49-2	SELENIUM	1.05E-01	1.07E-01	6.80E-04	4.39E-04	2.14E-04
1310-73-2	SODIUM HYDROXIDE (CAUSTIC SODA)	2.49E-01	2.49E-01	2.49E-01	2.49E-01	3.18E-01
100-42-5	STYRENE	1.60E-01	1.62E-01	1.27E-01	1.54E-02	4.60E-03
7664-73-9	SULFURIC ACID	*	*	9.20E-04	9.20E-04	9.20E-04
79-34-5	TETRACHLOROETHANE (1, 1, 2, 2-)	4.56E-03	4.56E-03	9.56E-02	9.56E-02	1.43E-02
127-18-4	TETRACHLOROETHYLENE (PERCHLOROETHYLENE)	7.79E+00	7.79E+00	6.24E+00	6.63E+00	5.66E+00
108-88-3	TOLUENE	7.74E-02	9.69E-02	5.26E-01	4.76E-01	3.86E-01
79-01-6	TRICHLOROETHYLENE (TCE)	5.75E+00	5.75E+00	5.52E+00	5.15E+00	4.32E+00
108-05-4	VINYL ACETATE				1.40E-04	*
75-01-4	VINYL CHLORIDE	1.51E-03	1.51E-03	4.06E-02	4.00E-02	3.99E-02
75-35-4	VINYLDENE CHLORIDE (DICHLOROETHYLENE (1, 1-))	6.55E-02	6.55E-02	6.75E-02	6.68E-02	7.48E-02
108-38-3	XYLENE (M-)	*	*	*	*	*
1330-20-7	XYLENE (MIXED ISOMERS)(XYLOL)	2.08E-02	2.38E-02	3.73E-01	3.73E-01	2.90E-01
95-47-6	XYLENE (O-)	*	*	*	*	*
106-42-3	XYLENE (P-)	*	*	*	*	*
	ZINC POTASSIUM CHROMATE	*	*	*	*	*

*Represents estimated emissions less than one (1) pound per year (lb/yr)

Note 1: During 2012 preparation an estimated value was provided for all emitted Toxic Air Pollutants (TAPs). Data was retroactively provided for any TAP that was emitted at greater than 1 lb/yr (5.0E-04TPY) during 2012 for CY2011 and CY2010.

Note 2: These values are estimated emissions determined by EPA emission factors, material balance, and process knowledge. They are not determined by continuous monitoring or sample analysis.