Data on KUBOTA Production Plants in Japan

Data on KUBOTA Production Plants in Japan

Item		Unit	Hanshin Plant (Mukogawa)		Hanshin Plant (Amagasaki)		Keiyo Plant (Funabashi)		Keiyo Plant (Ichikawa)		Hirakata Plant		Okajima Business Center		Sakai Plant		Sakai Rinkai Plant		Utsunomiya Plant		Tsukuba Plant		Kyuhoji Business Center		Ryugasaki Plant		Shiga Plant	
INPUT																												
Energy			Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ
	Electricity	MWh	39,220	383,793	30,050	299,619	59,170	571,464	4,080	40,662	45,000	440,804	34,540	337,046	25,030	244,786	11,390	111,767	7,630	75,121	30,680	301,612	2,400	23,568	3,320	33,121	2,950	29,399
	Coal coke	tons	11,226	330,055	0	0	22,689	667,059	0	0	0	0	4,254	125,080	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Town gas	1,000 m³	2,965	127,692	4,235	182,387	753	32,447	0	0	3,731	160,694	1,074	46,273	1,594	68,662	573	24,663	959	41,283	2,241	96,535	117	5,037	201	8,636	636	27,393
	Kerosene	kℓ	4,594	168,585	11	414	12,295	451,235	6	225	73	2,661	0	0	0	0	0	3	389	14,270	968	35,531	4	147	9	320	0	0
	Light oil	kℓ	38	1,447	13	473	202	7,600	13	506	271	10,226	26	981	744	28,051	1,673	63,078	156	5,881	754	28,407	5	189	2	70	0	0
	Heavy oil, LPG, etc.		—	924	—	2,502	—	28,916	—	2,124	—	1,194	—	97	—	18,719	—	5,282	—	1,661	—	0	—	3,059	—	300	—	0
	Total		—	1,012,496	—	485,395	—	1,758,720	—	43,517	—	615,578	—	509,476	—	360,219	—	204,793	—	138,217	—	462,085	—	32,000	—	42,448	—	56,792
Water usage		1,000 m³	826		175		1430		11		185		93		104		46		241		201		15		14		126	
OUTPUT																												
CO_2 emission	Energy-related	t-CO_2	67,459		19,973		131,085		1,881		24,951		28,732		15,525		9,947		6,732		21,996		1,323		1,866		2,413	
Waste	Volume of discharge	tons	12,760		3,714		25,649		143		3,732		11,546		917		713		360		1,590		117		136		315	
	landfill ratio	%	0.3		0.0		0.7		0.4		1.7		0.8		0.7		1.1		0.9		0.2		3.2		0.5		0.1	

	Main smoke and soot generating facilities		Melting furnaces			Heating furnaces			Melting furnaces			—			Heating furnaces			Melting furnaces			Drying furnaces			—			Drying furnaces			Boilers			—			Boilers			Boilers		
		Unit	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value
Exhaust gas	SOx	Total emission control and K-value control: m³N/h	K-value control	0.22	0.004	*Use of town gas with zero sulfur content			Total emission control	19.3	0.35	No smoke and soot generating facilities			*Use of town gas with zero sulfur content			Total emission control	2.86	0.053	Total emission control	1.615	0.231	No smoke and soot generating facilities			*Use of town gas with zero sulfur content			K-value control	17.5	0.04	No smoke and soot generating facilities			*Use of town gas with zero sulfur content			*Use of town gas with zero sulfur content		
	NOx	Total emission control: m³N/h, Concentration control: ppm	Total emission control	24.2	3.23	Total emission control	2.24	0.016	Total emission control	41.3	2.9				Total emission control	7.661	0.02	Total emission control	2.4	0.037	Total emission control	1.661	0.393				Concentration control	150	35	Concentration control	230	110				Concentration control	230	57	Concentration control	180	35
	Soot and dust	g/m³N	Concentration control	0.1	0.0017	Concentration control	0.1	0.0011	Concentration control	0.1	0.0056				Concentration control	0.1	0.008	Concentration control	0.05	0.006	Concentration control	0.1	0.021				Concentration control	0.1	0.001	Concentration control	0.25	0.01				Concentration control	0.2	Under 0.01	—	—	—

*Total emission control: Control value by plant and the measurement value of major facilities
*K-value control and concentration control: Control and measurement values of major facilities

				Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value
Drainage	Public water areas	pH	—	5.8–8.6	7.0	—	—	5–9	6.7	5–9	7.2	5.8–8.6	7.0	—	—	—	—	5.8–8.6	6.6	5.8–8.6	7.5	5.8–8.6	7.5	—	—	—	—	6.0–8.5	7.8				
		BOD	mg/ℓ	30	3	—	—	—	—	60	2.5	25	8.7	—	—	—	—	30	1.9	25	10.1	20	2.6	—	—	—	—	20	ND				
		COD	mg/ℓ	20	4	—	—	20	1.5	60	10.1	25	5.9	—	—	—	—	30	11.1	—	—	20	5.1	—	—	—	—	20	4				
		Nitrogen	mg/ℓ	120	4.6	—	—	20	2.9	70	8.9	120	8.7	—	—	—	—	120	11.6	—	—	60	5.0	—	—	—	—	8	ND				
		Phosphorus	mg/ℓ	16	0.2	—	—	2	0.05	7	1.0	16	0.71	—	—	—	—	16	1.9	—	—	8	0.4	—	—	—	—	0.8	ND				
		Hexavalent chromium	mg/ℓ	0.35	ND	—	—	0.05	ND	0.5	ND	0.05	ND	—	—	—	—	0.5	ND	0.1	ND	0.5	ND	—	—	—	—	0.05	ND				
		Lead	mg/ℓ	0.1	ND	—	—	0.1	ND	0.1	ND	0.01	ND	—	—	—	—	0.1	ND	0.1	ND	0.1	ND	—	—	—	—	0.1	ND				
		Regulation value of COD volume	kg/day	104.7	5.8	—	—	110.5	17.5	4.0	0.31	37.95	2.04	—	—	—	—	1.88	0.69	—	—	—	—	—	—	—	—	—	—				
		Regulation value of nitrogen volume	kg/day	40.5	12.8	—	—	114.7	11.0	2.865	0.32	38.3	1.93	—	—	—	—	7.54	0.72	—	—	—	—	—	—	—	—	—	—				
		Regulation value of phosphorus volume	kg/day	1.4	0.3	—	—	11.65	0.14	0.391	0.035	4.41	0.18	—	—	—	—	1.0	0.11	—	—	—	—	—	—	—	—	—	—				
	Sewerage	pH	—	5.7–8.7	7.3	5.7–8.7	7.7	—	—	—	—	—	—	5.7–8.7	6.5	5.7–8.7	6.4	—	—	—	—	—	—	5.7–8.7	7.6	5–9	7.3	—	—				
		BOD	mg/ℓ	300	5	300	4	—	—	—	—	—	—	600	13	300	140	—	—	—	—	—	—	300	2	600	64	—	—				
		COD	mg/ℓ	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	600	85	—	—				
		SS	mg/ℓ	300	ND	300	15	—	—	—	—	—	—	600	6	300	6	—	—	—	—	—	—	300	11	600	45	—	—				

Results of PRTR Reporting Unit: kg/year

Name of plant	Name of substance	Number specified in Cabinet Order	Release volume				Transfer volume	
			Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
Hanshin Plant (Mukogawa)	Ethylbenzene	40	6,833	0.0	0.0	0.0	0.0	61
	Xylene	63	12,600	0.0	0.0	0.0	0.0	90
	Toluene	227	17,153	0.0	0.0	0.0	0.0	1,547
	Lead and its compounds	230	0.0	0.0	0.0	0.0	0.0	9,557
	Nickel	231	0.0	0.0	0.0	0.0	0.0	231
	Phenol	266	0.0	0.0	0.0	0.0	0.0	0.0
Hanshin Plant (Marushima)	Ethylbenzene	40	8,983	0.0	0.0	0.0	0.0	8.0
	Xylene	63	26,686	0.0	0.0	0.0	0.0	11
	Toluene	227	27,693	0.0	0.0	0.0	0.0	199
	Nickel	231	0.0	0.0	0.0	0.0	0.0	146
Hanshin Plant (Amagasaki)	Chromium and chromium (III) compounds	68	0.0	0.0	0.0	0.0	3.5	3,588
	Toluene	227	1,566	0.0	0.0	0.0	0.0	0.0
	Nickel	231	0.0	0.0	0.0	0.0	0.0	0.7
	Boron and its compounds	304	0.0	0.0	0.0	0.0	0.0	844
	Manganese and its compounds	311	0.0	0.0	0.0	0.0	0.0	6,662
	Molybdenum and its compounds	346	0.0	0.0	0.0	0.0	0.0	0.0
Hanshin Plant (Nagasu)	Bisphenol A type epoxy resin (liquid)	30	0.0	0.0	0.0	0.0	0.0	0.0
	Ethylbenzene	40	1,482	0.0	0.0	0.0	0.0	0.0
	Xylene	63	2,548	0.0	0.0	0.0	0.0	0.0
	Toluene	227	4,821	0.0	0.0	0.0	0.0	0.0

Name of plant	Name of substance	Number specified in Cabinet Order	Release volume				Transfer volume	
			Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
Keiyo Plant (Funabashi)	Bis (2-ethylhexyl) adipate	9	0.0	0.0	0.0	0.0	0.0	134
	Ethylbenzene	40	30,900	0.0	0.0	0.0	0.0	615
	Cadmium and its compounds	60	0.0	0.0	0.0	0.0	0.0	8,310
	Xylene	63	46,686	0.0	0.0	0.0	0.0	891
	Toluene	227	98,747	0.0	0.0	0.0	0.0	1,636
	Lead and its compounds	230	0.0	0.0	0.0	0.0	0.0	25,037
	Nickel	231	0.0	0.0	0.0	0.0	0.0	26
	Phenol	266	0.0	0.0	0.0	0.0	0.0	0.0
	Manganese and its compounds	311	0.0	0.0	0.0	0.0	0.0	30,611
Keiyo Plant (Distribution Center)	Ethylbenzene	40	9,983	0.0	0.0	0.0	0.0	204
	Xylene	63	49,972	0.0	0.0	0.0	0.0	1,020
	Toluene	227	15,681	0.0	0.0	0.0	0.0	311
Keiyo Plant (Ichikawa)	Xylene	63	1,858	0.0	0.0	0.0	0.0	0.0
	Manganese and its compounds	311	2.9	0.0	0.0	0.0	0.0	47
Keiyo Plant (Gyotoku Processing Center)	Manganese and its compounds	311	0.0	0.0	0.0	0.0	0.0	29
Hirakata Plant	Bisphenol A type epoxy resin (liquid)	30	0.0	0.0	0.0	0.0	0.0	644
	Ethylbenzene	40	555	0.0	0.0	0.0	0.0	11,214
	Xylene	63	1,220	0.0	0.0	0.0	0.0	20,811
	Chromium and chromium (III) compounds	68	0.0	0.0	0.0	0.0	0.0	13,661
	Cobalt and its compounds	100	0.0	0.0	0.0	0.0	0.0	0.7

Name of plant	Name of substance	Number specified in Cabinet Order	Release volume				Transfer volume	
			Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
Hirakata Plant	Toluene	227	1,166	0.0	0.0	0.0	0.0	19,181
	Nickel	231	0.0	0.0	0.0	0.0	0.0	9.1
	Manganese and its compounds	311	0.0	0.0	0.0	0.0	0.0	3,373
	Molybdenum and its compounds	346	0.0	0.0	0.0	0.0	0.0	0.0
Okajima Business Center	Ethylbenzene	40	200	0.0	0.0	0.0	0.0	67
	Xylene	63	1,573	0.0	0.0	0.0	0.0	524
	Chromium and chromium (III) compounds	68	0.0	0.0	0.0	0.0	0.0	560
	1, 3, 5-trimethylbenzene	224	428	0.0	0.0	0.0	0.0	143
	Phenol	266	0.0	0.0	0.0	0.0	0.0	0.0
	Manganese and its compounds	311	0.0	0.0	0.0	0.0	0.0	1,129
Sakai Plant	Water-soluble zinc compounds	1	0.0	0.0	0.0	0.0	16	1,266
	Ethylbenzene	40	1,929	0.0	0.0	0.0	0.0	308
	Ethylene glycol	43	0.0	0.0	0.0	0.0	0.0	335
	Xylene	63	3,483	0.0	0.0	0.0	0.0	1,030
	Toluene	227	1,661	0.0	0.0	0.0	0.0	396
Sakai Rinkai Plant	Ethylene glycol	40	22	0.0	0.0	0.0	0.0	25
	Xylene	63	183	0.0	0.0	0.0	0.0	190
	Toluene	227	235	0.0	0.0	0.0	0.0	173
	Benzene	299	1.7	0.0	0.0	0.0	0.0	0.0

Name of plant	Name of substance	Number specified in Cabinet Order	Release volume				Transfer volume	
			Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
Utsunomiya Plant	Water-soluble zinc compounds	1	0.0	9.5	0.0	0.0	0.0	501
	Ethylbenzene	40	4,362	0.0	0.0	0.0	0.0	2,154
	Ethylene glycol	43	0.0	0.0	0.0	0.0	0.0	0.0
	Xylene	63	10,516	0.0	0.0	0.0	0.0	5,462
	Toluene	227	40	0.0	0.0	0.0	0.0	24
Tsukuba Plant	Water-soluble zinc compounds	1	0.0	24	0.0	0.0	0.0	752
	Ethylbenzene	40	10,192	0.0	0.0	0.0	0.0	217
	Ethylene glycol	43	0.0	0.0	0.0	0.0	0.0	0.0
	Xylene	63	26,277	0.0	0.0	0.0	0.0	1,966
	Chromium (VI) compounds	69	0.0	0.0	0.0	0.0	0.0	198
	Dichloropentafluoropropane	144	0.0	0.0	0.0	0.0	0.0	2,925
	Toluene	227	9,276	0.0	0.0	0.0	0.0	2,293
	Lead and its compounds	230	0.0	0.0	0.0	0.0	0.0	1,300
	Hydrogen fluoride and its water-soluble salts	283	0.0	0.0	0.0	0.0	0.0	1,297
Ryugasaki Plant	Ethylbenzene	40	1,471	0.0	0.0	0.0	0.0	72
	Xylene	63	1,931	0.0	0.0	0.0	0.0	87
	Toluene	227	829	0.0	0.0	0.0	0.0	422
Shiga Plant	Bis (2-ethylhexyl) adipate	9	0.0	0.0	0.0	0.0	0.0	164
	Styrene	177	24,960	0.0	0.0	0.0	0.0	0.0
	Di-n-butyl phthalate	270	0.0	0.0	0.0	0.0	0.0	48

Data on KUBOTA Group Production Plants in Japan and Overseas

Data on KUBOTA Group Production Plants in Japan

INPUT

Item		Unit	KUBOTA-C.I. (Sakai)		KUBOTA-C.I. (Odawara)		KUBOTA-C.I. (Tochigi)		KUBOTA Air Conditioner (Tochigi)		KUBOTA Precision Machinery		Nippon Plastic Industry Main Plant		Kyusyu KUBOTA Chemical	
			Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ
Energy	Electricity	MWh	11,930	116,389	29,050	281,529	19,300	187,046	2,110	21,044	10,560	102,761	10,750	103,461	6,200	59,591
	Coal coke	tons	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Town gas	1,000 m³	7	301	73	3,141	0	0	191	8,223	421	18,137	31	1,362	0	0
	Kerosene	kℓ	48	1,769	0	0	4	132	0	7	0	0	0	8	0	0
	Light oil	kℓ	7	272	27	1,036	1	49	1	25	3	111	0	0	1	48
	Heavy oil, LPG, etc.		—	166	—	69	—	5,857	—	1,095	—	658	—	953	—	136
	Total		—	118,897	—	285,775	—	193,084	—	30,395	—	121,667	—	105,785	—	59,775
Water usage		1,000 m³	15		69		251		52		19		108		5	

Item		Unit	Kubota Baumaschinen GmbH		Kubota Manufacturing of America Corporation		Kubota Industrial Equipment Corporation		The Siam Kubota Industry Co., Ltd.		Siam Kubota Tractor Co., Ltd.		P.T.Kubota Indonesia		Kubota Agricultural Machinery (Suzhou) Co., Ltd.		P.T.Metec Semarang		Kubota Metal Corporation	
			Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ	Volume of use	Heat conversion GJ
Energy	Electricity	MWh	1,500	14,989	17,910	178,544	13,100	130,625	9,680	96,553	6,080	60,617	1,350	13,424	4,930	49,164	3,980	39,721	14,270	142,319
	Coal coke	tons	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Town gas	1,000 m³	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Kerosene	kℓ	18	645	0	0	0	0	0	0	0	0	10	377	0	0	0	0	0	0
	Light oil	kℓ	105	3,973	359	13,552	57	2,141	90	3,397	156	5,881	7	266	272	10,254	16	586	0	0
	Heavy oil, LPG, etc.		—	14,066	—	1,279	—	60,129	—	12,936	—	11,619	—	8,605	—	20,763	—	14,452	—	94,533
	Total		—	33,673	—	193,374	—	192,895	—	112,886	—	78,118	—	22,671	—	80,181	—	54,760	—	236,852
Water usage		1,000 m³	5		51		10		73		49		31		45		42		27	

OUTPUT

CO_2 emission	Energy-related	t-CO_2	5,323		12,376		8,479		1,370		4,701		5,018		2,331		1,640		12,133	
Waste	Volume of discharge	tons	99		86		171		101		335		8		47		87		743	
	landfill ratio	%	0.3		0.0		0.3		0.0		0.4		0.7		0.0		0.0		17.1	

Exhaust gas	Main smoke and soot generating facilities		—		—		Diesel engines			Boilers			—		—		—			
		Unit	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value	Control content	Control value	Measurement value
	SOx	Total emission control and K-value control: m³N/h	No smoke and soot generating facilities			No smoke and soot generating facilities			K-value control	17.5	Non-operated and removed in January 2010	K-value control	2.3	0.049	No smoke and soot generating facilities			No smoke and soot generating facilities			No smoke and soot generating facilities		
	NOx	Total emission control: m³N/h, Concentration control: ppm							Concentration control	950		Concentration control	180	130									
	Soot and dust	g/m³N							Concentration control	0.1		Concentration control	0.3	0.005									

*Total emission control: Control value by plant and the measurement value of major facilities
*K-value control and concentration control: Control and measurement values of major facilities

				Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value	Control value	Measurement value
Drainage	Public water areas	pH	—	5.8–8.6	7.0	5.8–8.6	8.0	5.8–8.6	8.2	5.8–8.6	7.4	—	—	5.8–8.6	7.7	—	—
		BOD	mg/ℓ	25	2.0	60	ND	20	0.9	20	1.3	—	—	160	1.6	—	—
		COD	mg/ℓ	25	3.0	60	ND	—	—	—	—	—	—	160	ND	—	—
		Nitrogen	mg/ℓ	60	1.5	120	0.5	60	0.58	—	—	—	—	120	—	—	—
		Phosphorus	mg/ℓ	8	0.16	16	0.08	1	ND	—	—	—	—	16	—	—	—
		Hexavalent chromium	mg/ℓ	0.5	ND	0.5	ND	0.1	ND	0.1	ND	—	—	0.5	—	—	—
		Lead	mg/ℓ	0.1	ND	0.1	ND	0.1	0.04	0.1	ND	—	—	0.1	ND	—	—
		Regulation value of COD volume	kg/day	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Regulation value of nitrogen volume	kg/day	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Regulation value of phosphorus volume	kg/day	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Sewerage	pH	—	—	—	—	—	—	—	—	—	No specific facilities	—	—	—	No specific facilities	—
		BOD	mg/ℓ	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		COD	mg/ℓ	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		SS	mg/ℓ	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Results of PRTR Reporting Unit: kg/year

Name of plant	Name of substance	Number specified in Cabinet Order	Release volume				Transfer volume	
			Atmosphere	Public water areas	Soil	On-site landfills	Sewerage	Transfers to off-site
KUBOTA-C.I. Co., Ltd. (Sakai Plant)	Lead and its compounds	230	2.8	0.0	0.0	0.0	0.0	53
KUBOTA-C.I. Co., Ltd. (Odawara Plant)	Organotin compounds	176	0.1	0.0	0.0	0.0	0.0	16
	Lead and its compounds	230	1.5	0.0	0.0	0.0	0.0	232
KUBOTA-C.I. Co., Ltd. (Tochigi Plant)	Organotin compounds	176	0.0	0.0	0.0	0.0	0.0	9.2
	Lead and its compounds	230	0.0	0.0	0.0	0.0	0.0	580
Nippon Plastic Industry Co., Ltd.	Lead and its compounds	230	2.0	0.0	0.0	0.0	0.0	5.0
Kyusyu KUBOTA Chemical Co., Ltd.	Organotin compounds	176	0.0	0.0	0.0	0.0	0.0	13
	Lead and its compounds	230	0.0	0.0	0.0	0.0	0.0	174