

Zeon Group Environmental Data

Zeon Corporation only		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Toxic substances	Butadiene consumption (tons)	337,787	334,962	355,326	298,397	308,069
	Butadiene emissions (tons)	3.3	3.7	2.7	3.6	3.1
	Acrylonitrile consumption (tons)	27,118	25,784	27,729	24,483	29,840
	Acrylonitrile emissions (tons)	11.7	11.9	5.5	4.1	4.0
Substances subject to the PRTR Act	Consumption (tons)	887,078	921,688	942,613	800,074	885,176
	Emissions (tons)	33.5	36.7	30.1	27.4	25.2
Industrial waste	Amount generated before compacting (tons)	139,141	156,502	145,482	135,996	125,018
	Amount generated after compacting (tons)	14,535	16,530	14,020	15,074	14,574
	Amount sent to landfills (tons)	1.3	6.5	3.5	1.7	1.9
Atmospheric emissions	CO ₂ emissions (tons)	517,803	506,348	552,940	480,631	576,817
	SO _x emissions (tons)	476	509	624	605	796
	NO _x emissions (tons)	272	240	253	274	324
	Soot emissions (tons)	4.3	2.8	11.4	4.8	7.9
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		18,508	18,703	18,454	18,593	18,266
Wastewater	Total wastewater discharge (1,000 m ³)	17,761	15,894	15,940	15,919	15,928
	COD emissions (tons)	129	119	119	119	137
	Total phosphorus discharge (tons)	2.4	1.6	1.6	1.7	1.7
	Total nitrogen discharge (tons)	158	167	142	124	153
Energy	Total consumption (crude oil equivalent, kL)	194,242	192,930	214,921	193,757	228,378
	Per-unit energy consumption (kL/t-PDR)	0.1315	0.1277	0.1367	0.1252	0.1330
	Energy efficiency indicator (FY 1990=100)	63%	61%	65%	60%	64%
Production equivalent (tons)		1,478,704	1,519,947	1,572,613	1,547,789	1,671,352
Per-unit CO ₂ emissions indicator (FY 1990=100)		65%	62%	66%	58%	64%

Zeon Corporation each worksites

("0.0" indicates less than 0.05)

Takaoka Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	Consumption (tons)	16	21	17	22	44
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	12,494	8,794	7,959	6,751	8,046
	Amount generated after compacting (tons)	1,056	437	396	336	400
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Atmospheric emissions	CO ₂ emissions (tons)	22,546	20,825	20,964	20,654	21,167
	SO _x emissions (tons)	3.2	0.0	0.0	0.0	0.0
	NO _x emissions (tons)	13	2	2.5	0.2	0.3
	Soot emissions (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		3,732	3,848	3,804	4,079	4,086
Wastewater	Total wastewater discharge (1,000 m ³)	4,890	3,322	3,213	3,428	3,605
	COD emissions (tons)	18.9	12.7	12.6	16.1	15.9
	Total phosphorus discharge (tons)	0.8	0.3	0.3	0.3	0.3
	Total nitrogen discharge (tons)	20	14	14	15	12
Energy	Total consumption (crude oil equivalent, kL)	8,986	8,290	9,380	9,605	9,473
	Energy efficiency indicator (FY 1990=100)	86%	83%	85%	90%	81%
Production equivalent (tons)		53,945	56,609	54,616	52,844	57,863

Kawasaki Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Toxic substances	Butadiene consumption (tons)	20,372	23,534	21,758	23,040	21,940
	Butadiene emissions (tons)	2.4	2.6	2.0	1.9	2.1
	Acrylonitrile consumption (tons)	9,653	11,405	10,746	11,007	10,780
	Acrylonitrile emissions (tons)	11	11	5	4	3
Substances subject to the PRTR Act	Consumption (tons)	40,203	45,847	43,954	43,954	44,012
	Emissions (tons)	26	28	21.4	19.0	17.5
Industrial waste	Amount generated before compacting (tons)	48,039	52,900	44,380	56,330	42,734
	Amount generated after compacting (tons)	4,024	4,401	3,412	4,704	3,293
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Atmospheric emissions	CO ₂ emissions (tons)	20,917	25,778	23,443	21,409	23,610
	SO _x emissions (tons)	0.2	0.1	0.3	0.1	0.0
	NO _x emissions (tons)	7	5.7	5.6	5.9	7.7
	Soot emissions (tons)	0.8	0.6	0.5	0.5	0.6
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		3,092	3,657	3,241	3,244	3,143
Wastewater	Total wastewater discharge (1,000 m ³)	2,031	2,185	2,265	2,030	2,029
	COD emissions (tons)	45	44	35	42	56
	Total phosphorus discharge (tons)	0.3	0.2	0.2	0.2	0.2
	Total nitrogen discharge (tons)	93	115	89	72	103
Energy	Total consumption (crude oil equivalent, kL)	14,406	14,700	13,355	12,857	10,957
	Energy efficiency indicator (FY 1990=100)	75%	84%	65%	77%	66%
Production equivalent (tons)		73,834	85,441	80,229	82,271	79,883

Tokuyama Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Toxic substances	Butadiene consumption (tons)	206,710	170,327	195,538	152,247	179,158
	Butadiene emissions (tons)	0.8	1.1	0.7	1.6	0.8
	Acrylonitrile consumption (tons)	17,464	14,379	16,983	13,476	19,060
	Acrylonitrile emissions (tons)	0.6	0.7	0.6	0.6	0.6
Substances subject to the PRTR Act	Consumption (tons)	453,075	397,637	422,439	347,496	412,431
	Emissions (tons)	2.0	2.7	2.1	2.9	3.0
Industrial waste	Amount generated before compacting (tons)	19,201	24,063	23,163	24,738	28,898
	Amount generated after compacting (tons)	3,377	4,674	4,737	5,208	4,932
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Atmospheric emissions	CO ₂ emissions (tons)	279,750	237,362	263,215	228,574	261,456
	SO _x emissions (tons)	471	507	622	603	796
	NO _x emissions (tons)	205	179	191	200	256
	Soot emissions (tons)	3.5	2.2	10.9	4.3	7.3
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		8,927	8,393	8,812	8,703	8,705
Wastewater	Total wastewater discharge (1,000 m ³)	8,165	7,785	8,051	8,148	8,206
	COD emissions (tons)	49	42	57	49	52
	Total phosphorus discharge (tons)	0.7	0.6	0.8	0.7	0.6
	Total nitrogen discharge (tons)	28	27	28	25	26
Energy	Total consumption (crude oil equivalent, kL)	103,000	92,423	104,326	93,669	105,323
	Energy efficiency indicator (FY 1990=100)	89%	94%	95%	96%	92%
Production equivalent (tons)		636,225	537,497	603,368	532,374	626,406

Mizushima Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Toxic substances	Butadiene consumption (tons)	110,704	141,100	138,029	123,109	106,970
	Butadiene emissions (tons)	0.0	0.0	0.0	0.0	0.0
Substances subject to the PRTR Act	Consumption (tons)	393,777	478,178	476,200	408,600	428,684
	Emissions (tons)	5.3	6.0	6.5	5.4	4.4
Industrial waste	Amount generated before compacting (tons)	59,253	70,584	69,824	47,980	45,177
	Amount generated after compacting (tons)	5,999	6,956	5,418	4,717	5,869
	Amount sent to landfills (tons)	1.3	6.5	3.5	1.7	1.9
Atmospheric emissions	CO ₂ emissions (tons)	182,800	211,420	235,360	201,700	259,000
	SO _x emissions (tons)	1.2	1.4	1.1	2.2	0.1
	NO _x emissions (tons)	47	54	54	68	60
	Soot emissions (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		2,665	2,713	2,510	2,487	2,250
Wastewater	Total wastewater discharge (1,000 m ³)	2,674	2,602	2,411	2,313	2,088
	COD emissions (tons)	17	20	15	12	13
	Total phosphorus discharge (tons)	0.6	0.5	0.4	0.5	0.5
	Total nitrogen discharge (tons)	17	12	12	12	12
Energy	Total consumption (crude oil equivalent, kL)	67,850	77,517	87,860	77,626	96,576
	Energy efficiency indicator (FY 1990=100)	41%	40%	45%	38%	46%
Production equivalent (tons)		714,800	840,400	834,400	880,300	907,200

R&D Center		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Toxic substances	Butadiene consumption (tons)	1.09	0.80	0.72	0.90	0.61
	Butadiene emissions (tons)	0.05	0.03	0.03	0.10	0.23
	Acrylonitrile consumption (tons)	0.39	0.24	0.26	0.28	0.27
	Acrylonitrile emissions (tons)	0.0	0.0	0.0	0.0	0.0
Substances subject to the PRTR Act	Consumption (tons)	7.3	5.4	3.9	2.1	4.3
	Emissions (tons)	0.1	0.1	0.1	0.1	0.2
Industrial waste	Amount generated before compacting (tons)	154	160	157	197	163
	Amount generated after compacting (tons)	79	62	57	109	81
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Atmospheric emissions	CO ₂ emissions (tons)	11,790	10,963	9,958	8,294	11,300
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		93	92	88	80	80
Energy	Total consumption (crude oil equivalent, kL)	6,091	5,720	5,236	5,810	5,870

Head Office		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Atmospheric emissions	CO ₂ emissions (tons)	338	287	285	293	284
Water resources (Waterworks) consumption (1,000 m ³)		1.44	1.31	1.18	1.50	1.55
Energy	Total consumption (crude oil equivalent, kL)	205	182	180	186	179

Zeon Group companies in Japan

("0" indicates less than 0.5, and "0.0" indicates less than 0.05)

Zeon Group companies in Japan		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	65	62	59	61	63
	Consumption (tons)	1,801	1,924	1,710	1,712	4,669
	Emissions (tons)	2.1	2.1	2.4	2.4	4.1
Industrial waste	Amount generated before compacting (tons)	2,608	6,235	2,358	3,237	4,896
	Amount sent to landfills (tons)	11.2	10.6	5.9	2.9	0.2
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		143	163	163	284	319
CO ₂ emissions (tons)		37,937	44,552	48,474	46,195	56,021
Energy consumption (crude oil equivalent, kL)		17,926	18,454	19,696	19,345	22,771
Electric energy consumption (1000 kWh)		63,773	67,294	72,785	71,557	81,582

Zeon Kasei Co., Ltd. Ibaraki Factory		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	7	6	6	5	4
	Consumption (tons)	35	49	15	18	14
	Emissions (tons)	0.0	0.0	0.0	0.1	0.1
Industrial waste	Amount generated before compacting (tons)	478	389	258	284	248
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		29	19	18	163	156
CO ₂ emissions (tons)		3,723	3,468	2,768	2,475	2,332
Energy consumption (crude oil equivalent, kL)		1,875	1,545	1,265	1,145	1,075
Electric energy consumption (1000 kWh)		5,032	3,869	2,906	2,667	2,479

Zeon Kasei Co., Ltd. Yamaguchi Factory		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	3	3	3	3	3
	Consumption (tons)	0.0	0.0	0.2	0.0	0.1
	Emissions (tons)	0.0	0.0	0.2	0.0	0.1
Industrial waste	Amount generated before compacting (tons)	91	151	63	48	89
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		0.3	0.0	0.0	0.0	0.0
CO ₂ emissions (tons)		410	460	367	334	302
Energy consumption (crude oil equivalent, kL)		155	166	134	124	111
Electric energy consumption (1000 kWh)		459	591	482	437	387

Zeon Polymix Inc. Otsu Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	5	5	4	6	7
	Consumption (tons)	122	113	125	115	106
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	148	160	184	197	182
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		49	48	48	28	32
CO ₂ emissions (tons)		2,740	2,860	3,159	3,346	3,181
Energy consumption (crude oil equivalent, kL)		1,416	1,388	1,495	1,603	1,635
Electric energy consumption (1000 kWh)		5,260	5,321	5,877	6,326	6,450

Zeon Medical Inc.		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	1	1	1	1	1
	Consumption (tons)	1.6	1.6	1.6	1.6	1.8
	Emissions (tons)	1.6	1.6	1.6	1.6	1.8
Industrial waste	Amount generated before compacting (tons)	9	10	8	7	8
	Amount sent to landfills (tons)	4.3	4.5	0.4	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		17.8	21.9	13.5	10.3	11.1
CO ₂ emissions (tons)		1,123	1,003	920	945	1,010
Energy consumption (crude oil equivalent, kL)		539	401	364	380	400
Electric energy consumption (1000 kWh)		0	0	0	0	0

Zeon North Co., Ltd.		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	0	0	0	0	0
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	20	17	14	19	17
	Amount sent to landfills (tons)	3.1	4.2	2.5	0.5	0.2
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		—	1.6	1.5	1.6	2.3
CO ₂ emissions (tons)		146	161	159	273	320
Energy consumption (crude oil equivalent, kL)		85	92	103	119	133
Electric energy consumption (1000 kWh)		—	384	366	426	458

RIMTEC Corporation		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	0	0	0	0	0
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	49	23	31	39	7
	Amount sent to landfills (tons)	2.4	1.3	0.0	0.3	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		2.2	1.5	1.5	1.4	1.9
CO ₂ emissions (tons)		160	110	103	152	136
Energy consumption (crude oil equivalent, kL)		138	90	89	78	68
Electric energy consumption (1000 kWh)		—	—	—	—	0

Zeon Yamaguchi Co., Ltd.		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	40	40	40	40	40
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	225	4,018	171	482	172
	Amount sent to landfills (tons)	0.8	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		0.2	0.2	0.2	0.2	0.2
CO ₂ emissions (tons)		12	11	12	11	6
Energy consumption (crude oil equivalent, kL)		5	5	6	5	3
Electric energy consumption (1000 kWh)		53	21	23	21	13

Zeon Chemicals Yonezawa Co., Ltd.		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	7	5	3	4	5
	Consumption (tons)	1,642	1,759	1,567	1,576	4,544
	Emissions (tons)	0.5	0.5	0.6	0.6	1.5
Industrial waste	Amount generated before compacting (tons)	202	206	182	180	232
	Amount sent to landfills (tons)	0.0	0.0	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		9	14	12	14	18
CO ₂ emissions (tons)		1,151	1,421	1,815	1,716	2,089
Energy consumption (crude oil equivalent, kL)		490	591	762	720	876
Electric energy consumption (1000 kWh)		1,202	1,458	2,050	1,820	2,001

Optes Inc. Sano Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	1	1	1	1	1
	Consumption (tons)	0.0	0.0	0.0	0.0	0.0
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	10	8	6	9	6
	Amount sent to landfills (tons)	0.6	0.4	0.0	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		6	6	4	3	3
CO ₂ emissions (tons)		989	862	673	664	816
Energy consumption (crude oil equivalent, kL)		674	564	439	431	408
Electric energy consumption (1000 kWh)		*	2,274	1,767	1,735	1,631

*Included in Hokuriku Plant

Optes Inc. Hokuriku Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	1	1	1	1	1
	Consumption (tons)	1	1	1.1	1.3	1.5
	Emissions (tons)	0.0	0.0	0.0	0.0	0.0
Industrial waste	Amount generated before compacting (tons)	1,377	1,254	1,443	1,973	3,860
	Amount sent to landfills (tons)	0.0	0.3	0.1	0.0	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		29	52	66	64	90
CO ₂ emissions (tons)		27,483	34,196	38,498	36,279	39,252
Energy consumption (crude oil equivalent, kL)		12,549	13,612	15,039	14,740	15,333
Electric energy consumption (1000 kWh)		51,767	53,376	59,314	58,125	60,399

TFC Inc.		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	—	1	1	1	1
	Consumption (tons)	—	1	0.5	0.5	2.1
	Emissions (tons)	—	1	0.5	0.5	0.7
Industrial waste	Amount generated before compacting (tons)	—	94	83	66	75
	Amount sent to landfills (tons)	—	3.1	2.9	2.1	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		—	4	5	31	5
CO ₂ emissions (tons)		—	6,761	6,282	6,854	6,577
Energy consumption (crude oil equivalent, kL)		—	2,660	2,513	2,802	2,729
Electric energy consumption (1000 kWh)		—	7,449	7,106	8,029	7,765

Zeon Group companies outside Japan

("0" indicates less than 0.5, and "0.0" indicates less than 0.05)

Zeon Group companies outside Japan		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	13	15	10	10	10
	Consumption (tons)	29,080	51,496	19,674	18,123	24,531
	Emissions (tons)	74	91	82	67	83
Industrial waste	Amount generated before compacting (tons)	3,770	4,601	3,705	3,617	3,608
	Amount sent to landfills (tons)	2,807	2,916	2,429	2,365	2,388
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		1,877	2,380	1,780	1,811	1,951
CO ₂ emissions (tons)		85,718	125,438	121,819	128,317	142,838
Energy consumption (crude oil equivalent, kL)		32,401	50,388	47,310	50,374	56,741

Zeon Chemicals L.P. (ZCLP): Kentucky Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	8	7	7	7	7
	Consumption (tons)	14,927	16,202	15,376	13,757	19,796
	Emissions (tons)	20	10	21	8	14
Industrial waste	Amount generated before compacting (tons)	505	344	532	551	587
	Amount sent to landfills (tons)	478	332	526	539	568
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		957	1,014	685	722	779
CO ₂ emissions (tons)		31,741	33,570	32,329	31,368	32,107
Energy consumption (crude oil equivalent, kL)		9,820	11,017	10,323	9,755	10,219

Zeon Chemicals L.P. (ZCLP): Texas Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	0	0	0	0	0
	Consumption (tons)	0	0	0	0	0
	Emissions (tons)	0	0	0	0	0
Industrial waste	Amount generated before compacting (tons)	47	36	41	42	38
	Amount sent to landfills (tons)	2.2	3.0	2.0	1.0	0.8
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		226	252	188	228	261
CO ₂ emissions (tons)		10,059	10,712	10,520	9,651	11,165
Energy consumption (crude oil equivalent, kL)		2,940	3,150	3,099	2,837	3,306

Zeon Chemicals L.P. (ZCLP): Mississippi Plant		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	3	3	3	3	3
	Consumption (tons)	4,933	5,125	4,298	4,367	4,735
	Emissions (tons)	48	71	61	58	68
Industrial waste	Amount generated before compacting (tons)	44	42	97	128	93
	Amount sent to landfills (tons)	44	42	97	128	93
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		142	132	166	124	157
CO ₂ emissions (tons)		17,133	16,045	14,777	13,923	14,853
Energy consumption (crude oil equivalent, kL)		7,122	6,452	5,999	5,624	6,087

Zeon Chemicals Europe Ltd. (ZCEL)		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Substances subject to the PRTR Act	No. of substances (total)	2	2	—	—	—
	Consumption (tons)	9,220	9,272	—	—	—
	Emissions (tons)	5.6	7.6	—	—	—
Industrial waste	Amount generated before compacting (tons)	1,028	995	—	—	—
	Amount sent to landfills (tons)	1,020	991	—	—	—
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		268	245	—	—	—
CO ₂ emissions (tons)		11,412	11,352	—	—	—
Energy consumption (crude oil equivalent, kL)		6,018	5,869	—	—	—

Zeon Advanced Polymix Co., Ltd. (ZAP)		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Industrial waste	Amount generated before compacting (tons)	236	262	212	295	272
	Amount sent to landfills (tons)	0	0	0	0	0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		32	31	35	27	27
CO ₂ emissions (tons)		7,270	6,090	5,690	6,360	6,240
Energy consumption (crude oil equivalent, kL)		3,277	2,948	2,705	3,023	2,971

Zeon Chemicals (Thailand) Co., Ltd. (ZCT)		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Industrial waste	Amount generated before compacting (tons)	1,910	2,552	2,823	2,601	2,619
	Amount sent to landfills (tons)	1,263	1,548	1,804	1,697	1,727
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		252	316	304	293	269
CO ₂ emissions (tons)		8,103	8,488	14,970	10,616	11,253
Energy consumption (crude oil equivalent, kL)		3,224	3,377	5,957	4,224	4,477

Zeon Chemicals Singapore Pte. Ltd. (ZCS)		FY 2013	FY 2014	FY 2015	FY2016	FY2017
Industrial waste	Amount generated before compacting (tons)	—	370	0	0	0
	Amount sent to landfills (tons)	—	0	0	0	0
Water resources (Industrial water + Ground water + Waterworks) consumption(1,000 m ³)		—	390	402	417	458
CO ₂ emissions (tons)		—	39,181	43,533	56,400	67,221
Energy consumption (crude oil equivalent, kL)		—	17,575	19,227	24,911	29,680