

EPEAT4.7.2.1 Public disclosure of key environmental aspects

Plan with goals, targets and objectives

Canon environmental Goal is the achievement of Canon Environmental Vision. Through technological innovation and improved management efficiency, Canon aims to realize a society that promotes both enriched lifestyles and the global environment.

<http://www.canon.com/environment/vision/vision.html>

Canon has formulated an action plan and monitors the progress of its activities to systematically promote efforts to achieve its Environmental Vision. The results of activities are evaluated and verified each year with a view to incorporating this feedback into future activities.

<http://www.canon.com/environment/management/activities.html>

The key environmental aspects show as follows;

- a) Greenhouse Gas Emissions: Canon has long understood the importance of preventing global warming. We have promoted energy conservation activities across the Group, including developing technologies to prevent global warming and making improvements to production facilities and air conditioning equipment that consume substantial amounts of energy.

The following table shows the data for main sites.

		(t-CO ₂)	
		2015	2016
Greenhouse Gas Emissions	Scope 1	169,974	164,769
	Scope 2	994,783	953,952
	Scpoe 1&2	1,164,757	1,118,721

* We calculated the greenhouse gas emissions based on a GHG protocol (WRI/WBCSD).

- b) Water: Canon aims to reduce the amount of water used in the business activities of the entire Canon group (global). To this end, we promote water-saving measures and recycling and reduce the use of water from natural water systems such as rivers and groundwater.

The following table shows the data for main sites.

		2015	2016	
Total water withdrawal by source (thousand m ³)	Industrial water	3,211	3,141	
	Groundwater	1,728	1,595	
	Municipal water	4,797	4,674	
	Total water withdrawal	9,737	9,410	
Total volume of water recycled	Total volume of water recycled	1,828	1,704	
	A ratio for total water	18.8%	18.1%	
Total water discharge by quality and destination	Public water body	Total water discharge (thousand m ³)	2,267	2,197
		Average_BOD (mg/L)	6	4
		Average_SS (mg/L)	4	6
	Sewage	Total water discharge (thousand m ³)	5,599	5,344
		Average_BOD (mg/L)	33	34
		Average_SS (mg/L)	22	28

c) Waste: Canon has focused on enhancing technologies for the reuse of resources in a bid to further restrict the generation of actual waste. In 2015, Canon proceeded with various waste reduction efforts at our production sites, such as recycling waste generated in plastic molding processes, reducing press material waste, and reducing parts packaging volume.

The following table shows the data for main sites.

		2015	2016
Waste	All solid waste generated	99,638	98,417
	Discard that have been reduced (from the defined base year:previous year)	-1,335	1,221
	Discard that have been reused or recycled	87,094	86,219
	Solid waste that is landfilled	2,188	2,840
	Solid waste that sent to waste-to-energy	5,327	4,654
	Solid waste that sent to incineration	5,029	4,704
	Solid waste that sent to other disposal facilities	0t	0t

- d) Toxics: Canon strives to eliminate or reduce hazardous chemical substances used in the manufacturing process. For substances difficult to eliminate or reduce, our policy is to minimize their release into the air or water.

In 2015, emissions of substances listed in the Pollution Release and Transfer Register (PRTR) were down 19% year-on-year, to 29 tons.

The following table shows the data for main sites.

2016 List of chemical substances subjected to the PRTR Act (Global) (Unit: kg)

Directive No.	Name	Emissions volume		Transfer volume		
		Atmospheric emissions amount	Public waterway emissions amount	Amount Transferred to sewage system	Amount of waste transferred	Amount of recovered substance transferred
7	n-butyl acrylate	1	0	0	0	1,459
20	2-aminoethanol	71	0	2	0	14,111
31	antimony and its compounds	61	0	0	0	532
53	ethylbenzene	329	0	0	43	22,779
71	ferric chloride	0	0	0	0	124,411
80	xylene	2,171	0	0	331	154,796
125	monochlorobenzene	2,212	0	0	2	67,625
128	chloromethane; methyl chloride	13	0	0	0	0
150	1,4-dioxane	549	0	0	1	808
202	Divinylbenzene	0	0	0	0	4
232	N,N-dimethylformamide	384	0	0	0	487
240	styrene	231	0	0	0	33,741
259	Tetraethylthiuram disulfide	0	0	0	0	4
296	1,2,4-trimethylbenzene	8,333	0	0	0	11,300
298	tolylene diisocyanate	0	0	0	0	382
299	Toluidine	4	0	0	0	0
300	toluene	14,421	0	0	132	55,413
306	Hexamethylene diacrylate	0	0	0	0	85
308	nickel	0	0	0	1	929
309	nickel compounds	0	0	0	15	3,834
343	pyrocatechol (aka, catechol)	10	0	0	0	3,566
349	phenol	12	0	0	0	165
374	hydrogen fluoride and its water-soluble salts	3	26	1,301	1	743
395	water-soluble salts of peroxodisulfuric acid	0	0	44	0	5,433
408	Poly(oxyethylene)(1,1,3,3-tetramethy	0	0	0	0	1,931
412	manganese and its compounds	0	0	0	14	461
438	Methylnaphthalene	165	0	0	0	936
448	methylenebis (4,1-cyclohexylene) diisocyanate	0	0	0	0	1,561

2015 List of chemical substances subjected to the PRTR Act (Global)

(Unit: kg)

Directive No.	Name	Emissions volume		Transfer volume		
		Atmospheric emissions amount	Public waterway emissions amount	Amount Transferred to sewage system	Amount of waste transferred	Amount of recovered substance transferred
7	n-butyl acrylate	1	0	0	0	4
20	2-aminoethanol	54	0	4	0	12,221
31	antimony and its compounds	15	0	0	0	767
53	ethylbenzene	268	0	0	0	26,903
71	ferric chloride	0	0	0	0	31,051
80	xylene	1,879	0	0	0	152,689
125	monochlorobenzene	6,265	0	0	0	101,677
128	chloromethane; methyl chloride	15	0	0	0	0
150	1,4-dioxane	605	0	0	0	895
203	Diphenyl amine	0.00	0.00	0.00	0.00	0.04
232	N,N-dimethylformamide	437	0	0	0	632
240	styrene	248	0	0	0	48
259	Tetraethylthiuram disulfide	0	0	0	0	1
296	1,2,4-trimethylbenzene	8,344	0	0	0	11,330
298	tolylene diisocyanate	0	0	0	0	355
300	toluene	17,325	0	0	4,845	53,627
308	nickel	0	0	0	0	921
309	nickel compounds	0	0	0	25	4,658
343	pyrocatechol (aka, catechol)	8	0	0	0	2,349
349	phenol	45	0	0	0	85
374	hydrogen fluoride and its water-soluble salts	3	1	1,542	0	849
395	water-soluble salts of peroxodisulfuric acid	1	0	0	0	1
410	poly(oxyethylene)nonylphenyl ether	0	0	151	0	1,379
412	manganese and its compounds	0	0	0	0	462
438	Methylnaphthalene	171	0	0	0	970
448	methylenebis (4,1-cyclohexylene) diisocyanate	0	0	0	0	3,271