## EPEAT 4.7.2.1 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://global.canon/en/environment/vision/index.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.

https://global.canon/en/environment/lifecycle/index.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-CO2)

| | | 2016 | 2017 |
|---|---|---|---|
| Greenhouse Gas Emissions | Scope 1 | 164,769 | 174,342 |
| | Scope 2 | 970,848 | 987,485 |
| | Scpoe 1&2 | 1,135,617 | 1,161,827 |

* 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.

| | | | 2016 | 2017 |
|---|---|---|---|---|
| Total water withdrawal by source (thousand $m^3$) | Industrial water | | 3,141 | 3,145 |
| | Groundwater | | 1,595 | 1,559 |
| | Municipal water | | 4,674 | 5,001 |
| | Total water withdrawal | | 9,410 | 9,706 |
| Total volume of water recycled | Total volume of water recycled | | 1,705 | 1,893 |
| | A ratio for total water | | 18.1% | 19.5% |
| Total water discharge by quality and destination | Public water body | Total water discharge (thousand $m^3$) | 2,197 | 2,316 |
| | | Average_BOD (mg/L) | 4 | 8 |
| | | Average_SS (mg/L) | 6 | 7 |
| | Sewage | Total water discharge (thousand $m^3$) | 5,344 | 5,481 |
| | | Average_BOD (mg/L) | 31 | 42 |
| | | Average_SS (mg/L) | 26 | 52 |

c) Waste: Canon has focused on enhancing technologies for the reuse of resources in a bid to further restrict the generation of actual waste. Our various operational sites employ a range of in-house recycling schemes, including reprocessing waste plastic from injection molding or recycling it for other items.
The following table shows the data for main sites.

| | | 2016 | 2017 |
|---|---|---|---|
| Waste | All solid waste generated | 98,417 | 101,879 |
| | Discard that have been reduced (from the defined base year:previous year) | 1,221 | -3,462 |
| | Discard that have been reused or recycled | 85,524 | 89,251 |
| | Solid waste that is landfilled | 3,126 | 2,176 |
| | Solid waste that sent to waste-to-energy | 5,896 | 7,903 |
| | Solid waste that sent to incineration | 3,872 | 2,548 |
| | 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.

The following table shows the data for main sites.

**2017 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 | 40,957 |
| 20 | 2-aminoethanol | 91 | 0 | 2 | 0 | 15,991 |
| 31 | antimony and its compounds | 90 | 0 | 0 | 0 | 305 |
| 53 | ethylbenzene | 790 | 15 | 0 | 103 | 18,770 |
| 71 | ferric chloride | 0 | 0 | 0 | 0 | 161,449 |
| 80 | xylene | 2,793 | 23 | 0 | 330 | 141,400 |
| 125 | monochlorobenzene | 1,599 | 0 | 0 | 56 | 57,530 |
| 128 | chloromethane; methyl chloride | 4 | 0 | 0 | 0 | 0 |
| 150 | 1,4-dioxane | 547 | 0 | 0 | 0 | 812 |
| 202 | Divinylbenzene | 0 | 0 | 0 | 0 | 80 |
| 232 | N,N-dimethylformamide | 365 | 0 | 0 | 0 | 520 |
| 240 | styrene | 277 | 0 | 0 | 0 | 151,434 |
| 259 | Tetraethylthiuram disulfide | 0 | 0 | 0 | 0 | 13 |
| 296 | 1,2,4-trimethylbenzene | 7,586 | 0 | 0 | 1 | 24,734 |
| 298 | tolylene diisocyanate | 0 | 0 | 0 | 0 | 330 |
| 299 | Toluidine | 3 | 0 | 0 | 0 | 0 |
| 300 | toluene | 17,997 | 140 | 0 | 3,349 | 69,144 |
| 306 | Hexamethylene diacrylate | 0 | 0 | 0 | 0 | 38 |
| 308 | nickel | 0 | 0 | 0 | 1 | 1,037 |
| 309 | nickel compounds | 0 | 0 | 0 | 19 | 3,778 |
| 343 | pyrocatechol (aka, catechol) | 12 | 0 | 0 | 0 | 4,076 |
| 349 | phenol | 11 | 0 | 0 | 0 | 187 |
| 374 | hydrogen fluoride and its water-soluble salts | 4 | 60 | 1,639 | 0 | 664 |
| 395 | water-soluble salts of peroxodisulfuric acid | 0 | 0 | 41 | 0 | 5,245 |
| 408 | Poly(oxyethylene)(1,1,3,3-tetramethyl | 0 | 0 | 0 | 0 | 1,192 |
| 412 | manganese and its compounds | 0 | 0 | 0 | 22 | 5,117 |
| 438 | Methylnaphthalene | 104 | 0 | 0 | 0 | 591 |
| 448 | methylenebis (4,1-cyclohexylene) diisocyanate | 0 | 0 | 0 | 0 | 5,376 |

**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-tetramethyl | 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 |