



# Kyocera Group Environmental Impact Data

## Kyocera Optec Co., Ltd Headquarters, Chigase Plant

**Profile**

|                       |                                      |
|-----------------------|--------------------------------------|
| Location              | 3-1778 Osoki, Oume-shi, Tokyo        |
| Products manufactured | Various lenses and optical equipment |
| Number of employees   | 220                                  |
| Landarea              | 7,435m <sup>2</sup>                  |
| Total floor space     | 8,138m <sup>2</sup>                  |

### Environmental Performance

| Items                      | Units               |                          | FY 2010 |                      | FY 2011 |                      |
|----------------------------|---------------------|--------------------------|---------|----------------------|---------|----------------------|
|                            | Amount              | Specific consumption     | Amount  | Specific consumption | Amount  | Specific consumption |
| Energy                     | kℓ (crudeoil based) | kℓ/M Yen                 | 1,053   | 0.29                 | 1,223   | 0.21                 |
| CO <sub>2</sub>            | t-CO <sub>2</sub>   | t-CO <sub>2</sub> /M Yen | 1,494   | 0.41                 | 1,874   | 0.33                 |
| Water                      | m <sup>3</sup>      | m <sup>3</sup> /M Yen    | 29,090  | 7.98                 | 33,313  | 5.81                 |
| Industrial waste emissions | kg                  | kg/M Yen                 | 91,055  | 24.98                | 117,120 | 20.41                |
| Effluent                   | m <sup>3</sup>      | m <sup>3</sup> /M Yen    | 15,529  | 4.26                 | 20,969  | 3.65                 |

### Air related

| Items | Facility | Legal standard | Internal criteria | Self-management standard | Performance for FY2011 |     |                       |
|-------|----------|----------------|-------------------|--------------------------|------------------------|-----|-----------------------|
|       |          |                |                   |                          | Ave                    | Max | Measurement frequency |
| N/A   |          |                |                   |                          |                        |     |                       |

### Air emission: total impact (units: tons)

| Items | Total emission |         |
|-------|----------------|---------|
|       | FY 2010        | FY 2011 |
| N/A   |                |         |

### Water quality

(units: mg/ℓ)

| Items                                | Legal standard | Internal criteria | Self-management standard | Performance for FY2011 |       |                       |
|--------------------------------------|----------------|-------------------|--------------------------|------------------------|-------|-----------------------|
|                                      |                |                   |                          | Ave                    | Max   | Measurement frequency |
| Hydrogen ion concentration (pH)      | 5.8~8.6        | 6.2~8.2           | 6.5~8.0                  | 6.9                    | 7.2   | Once/daily            |
| Biochemical oxygen demand (BOD)      | 25             | 10                | 20                       | <2                     | <2    | Once/month            |
| Chemical oxygen demand (COD)         | 25             | 10                | 20                       | 1.8                    | 3.9   | Twice/month           |
| Suspended solid (SS)                 | 5              | 5                 | 3                        | 2.0                    | 2.0   | Once/month            |
| N-hexane extracts weight             | 5              | 1                 | 1                        | <1.0                   | <1.0  | Once/month            |
| Phenols content                      | 5              | 0.5               | 0.5                      | 0.00                   | <0.3  | Once/year             |
| Copper content                       | 3              | 1                 | 0.8                      | <0.01                  | <0.01 | Once/year             |
| Zinc content                         | 2              | 1                 | 0.4                      | <0.01                  | <0.01 | Once/year             |
| Dissolved iron content               | 10             | 5                 | 1                        | <0.01                  | <0.01 | Once/year             |
| Dissolved manganese content          | 10             | 5                 | 1                        | <0.01                  | <0.01 | Once/year             |
| Coliform group number (colonies/ mℓ) | 3,000          | 350               | 330                      | 30                     | 30    | Once/year             |
| Nitrogen content                     | 25             | 60                | 25                       | 6.6                    | 14.9  | Once/year             |
| Phosphorous content                  | 4              | 8                 | 4                        | 0.02                   | 0.03  | Once/year             |

### Water pollution: total impact (units: tons)

| Items                           | Total emission |         |
|---------------------------------|----------------|---------|
|                                 | FY 2010        | FY 2011 |
| Chemical oxygen demand (COD)    | 0.036          | 0.042   |
| Biochemical oxygen demand (BOD) | 0.031          | 0.036   |
| Nitrogen                        | 0.068          | 0.139   |
| Phosphorous                     | 0.000          | 0.000   |

### Bad odors

No incidents exceeded standards.

### Noise and vibration

No incidents exceeded standards.

### PRTR substances

(units: tons)

| Number                           | Substance | Handled amounts | Releases |       |      | Transfers to |        | Other amounts |             |                    |
|----------------------------------|-----------|-----------------|----------|-------|------|--------------|--------|---------------|-------------|--------------------|
|                                  |           |                 | Air      | Water | Soil | Waste        | Sewage | Recycled      | Consumption | Removed by process |
| 300                              | toluene   | 1.14            | 0.95     | 0.0   | 0.0  | 0.0          | 0.0    | 0.19          | 0.0         | 0.0                |
| Target chemical substances total |           | 1.14            | 0.95     | 0.0   | 0.0  | 0.0          | 0.0    | 0.19          | 0.0         | 0.0                |