

Calculation Standards for Environmental Performance Indicators

◆ Input

Environmental Performance Indicator	Unit	Calculation Method
[Energy] Scope of domestic data collection: All domestic bases Scope of overseas data collection: Research bases, production bases, offices (purchased electricity only)		
Purchased electricity	MWh	Amount of electricity purchased from electric utility companies
Gases	Thousand m ³	Amount of gas purchased from gas utility companies (city gas, LPG)
Petroleum	kL	Amount of oil purchased (heavy oil, diesel, kerosene, gasoline), including fuel consumed by domestic company vehicles
Thermal equivalent	Thousand GJ	Thermal equivalent values of energy purchased (electricity, gas, oil), including fuel for domestic company vehicles. $\Sigma [(annual\ usage\ amounts\ of\ purchased\ electricity,\ gas,\ and\ petroleum) \times unit\ calorific\ value\ for\ each\ type\ of\ energy]$ Unit calorific values are on the Regulation for Enforcement of the Law Regarding the Rationalization of Energy Use
[Water] Scope of domestic data collection: All bases (excluding branches/sales offices) Scope of overseas data collection: Research bases and production bases		
City water / industrial water	Thousand m ³	Amount of intake of city water and industrial water provided after public water treatment
Surface water	Thousand m ³	Amount of intake of untreated surface water (river, lake water, etc.)
Ground water	Thousand m ³	Amount of intake of untreated ground water
[Chemical substances] Scope of domestic data collection: All bases Scope of overseas data collection: Research bases and production bases		
PRTR substances	t	Handling volume of PRTR substances (specified substances and Class I Designated Chemical Substances stipulated in the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof), are the total handling volume of substances for which each worksite's annual handling volume is 100 kg or more. The handling amount is calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2).
VOCs (excluding PRTR substances)	t	Figures for VOCs (volatile organic compounds stipulated by the Ministry of the Environment) excluding PRTR substances are the total handling volume of substances for which each worksite's annual handling volume is 100 kg or more. The handling amount is calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2).

◆ Output

Environmental Performance Indicator	Unit	Calculation Method
[Atmosphere] Scope of domestic data collection: All domestic bases Scope of overseas data collection: Research bases, production bases, offices (purchased electricity only)		
Greenhouse gases	t-CO ₂ eq	<p>Total of CO₂ equivalent emissions from energy (fuel and electricity) purchased at worksites, fuel for domestic company vehicles, and domestic leakage of fluorocarbons</p> <p>Greenhouse gases: Σ (amount of each type of energy used x CO₂ emissions factors for each type of energy) + Σ [(amount of fluorocarbons refilled - amount of fluorocarbons recovered) x GHG factor for each type of fluorocarbons]</p> <p>Figures for fuel are the totals calculated using the factors for each type of fuel based on the Ministry of the Environment's Greenhouse Gas Emission Calculation and Reporting Manual (version 4.2)</p> <p>Figures for electricity are the totals calculated using the actual emission factor for each electric utility company and the factor for each country as shown in "CO₂ Emissions From Fuel Combustion (IEA 2016)," from the International Energy Agency)</p>
NOx	t	<p>The scope of data collection is facilities that produce soot/smoke for which exhaust gas NOx concentrations are measured under laws and regulations, etc.</p> <p>Σ (NOx concentration in exhaust gas x annual exhaust gas volume)</p>
SOx	t	<p>The scope of data collection is facilities that produce soot/smoke for which exhaust gas SOx concentrations are measured under laws and regulations, etc.</p> <p>Σ (SOx concentration in exhaust gas x annual exhaust gas volume)</p>
Particulate matter	t	<p>The scope of data collection is facilities that produce soot/smoke for which exhaust gas particulate matter concentrations are measured under laws and regulations, etc.</p> <p>Σ (particulate matter concentration in exhaust gas x annual exhaust gas volume)</p>
PRTR substances	t	<p>For PRTR substances for which each worksite has an annual handling volume of 100 kg or more, total amount released to the atmosphere.</p> <p>Atmospheric emissions of each substance are calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2).</p>
VOC	t	<p>For VOCs (excluding PRTR substances) for which each worksite has an annual handling volume is 100 kg or more, total amount of released to the atmosphere.</p> <p>Atmospheric emissions of each substance are calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2).</p>

Environmental Performance Indicator	Unit	Calculation Method
[Wastewater] Scope of domestic data collection: All bases (excluding branches and sales offices) Scope of overseas data collection: Research bases and production bases		
Wastewater volume	m ³	Total amount of water released to public water bodies or sewer systems (includes the amount of rainwater released at bases that have the same discharge system for rainwater and wastewater)
COD pollution load	t	Amount of COD discharged by worksites that release wastewater to public water bodies (rivers, ocean, etc.) Σ (COD concentration in water discharged from bases \times annual wastewater volume released to public water bodies)
BOD pollution load	t	Amount of BOD discharged by worksites that release wastewater to rivers Σ (BOD concentration in water discharged from bases \times annual wastewater volume released to public water bodies)
Nitrogen	t	Nitrogen pollution load for worksites that release wastewater to public water bodies Σ (nitrogen concentration in water discharged from bases \times annual wastewater volume discharged to public water bodies)
Phosphorus	t	Phosphorus pollution load for worksites that release wastewater to public water bodies Σ (phosphorus concentration in water discharged from bases \times annual wastewater volume discharged to public water bodies)
PRTR substances	t	For PRTR substances for which each worksite has an annual handling volume of 100 kg or more, total amount released to public waters. Amount of each substance released to public water bodies is calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2)
VOC	t	For VOCs (excluding PRTR substances) for which each worksite has an annual handling volume of 100 kg or more, total amount released to public waters. Amount of each substance released to public water bodies is calculated in accordance with the Manual for PRTR Release Estimation Methods from the Ministry of Economy, Trade and Industry and the Ministry of the Environment (Ver. 4.2).

Environmental Performance Indicator	Unit	Calculation Method
[Waste] Scope of domestic data collection: All bases and external facilities (distribution center) Scope of overseas data collection: Research bases and production bases		
Amount of waste generated	t	Volume of waste generated (unnecessary items generated in business activities and contracted for paid processing)
Waste emissions	t	Volume of waste contracted out for processing after intermediate processing at the company or directly
Amount of final waste disposed	t	Volume of waste disposed of at landfills following intermediate processing

Domestic research bases:	Yokohama Office, Shonan Office, Kashima Site
Domestic production bases:	Onoda Plant, Yoshitomi Plant
Overseas research bases:	Tanabe Research Laboratories U.S.A., Medicago R&D
Overseas production bases:	Taiwan Tanabe Seiyaku (Hsinchu Plant), Tianjin Tanabe Seiyaku, Mitsubishi Tanabe Pharma Korea (Hyangnam Plant), Mitsubishi Tanabe Pharma Indonesia (Bandung Plant), Medicago Canada, Medicago U.S.A.
Overseas offices:	Mitsubishi Tanabe Pharma (Shanghai Office), Mitsubishi Tanabe Pharma Development (Beijing), Taiwan Tanabe Seiyaku (Head Office), Tai Tien Pharmaceuticals, Mitsubishi Tanabe Pharma Korea (Seoul Office), Mitsubishi Tanabe Pharma Indonesia (Head Office), Mitsubishi Tanabe Pharma Singapore, Mitsubishi Tanabe Pharma (Thailand), Mitsubishi Tanabe Pharma Holdings America, Mitsubishi Tanabe Pharma America, Mitsubishi Tanabe Pharma Development America, MP Healthcare Venture Management, Medicago, MTPC Holdings Canada, Inc., Mitsubishi Tanabe Pharma Europe, Mitsubishi Tanabe Pharma GmbH, NeuroDerm