

# Environmental Performance Data

## ISO14001 Certification Acquisition Results

The Fujitsu Group as a whole is working toward ISO14001 certification acquisition to promote Group-wide EMS operation.

### Results of ISO14001 Certification Acquisition (Total: 85 sites)

#### Fujitsu Group [in Japan]

Certified plant/site	Date of certification
PFU	October 1996
Yamagata Fujitsu	May 1997
Fujitsu Ten (Headquarters Plant) (Nakatsugawa Plant)	June 1997 August 1997
Shin-Etsu Fujitsu	July 1997
Fujitsu Tohoku Electronics (Headquarters)	September 1997
Kyushu Fujitsu Electronics (Kagoshima site)	October 1997
Fujitsu VLSI (Kozoji/Gifu areas)	December 1997
Shinko Electric Industries (Takaoka /Kyogase Plants) (Arai Plant)	March 1998 March 1999
(Wakaho Plant)	July 1999
(Kouhoku Plant)	September 2002
Fujitsu I-Network Systems (Yamanashi Plant)	April 1998
Fujitsu Frontech (Niigata Plant) (Tokyo Plant)	April 1998 October 1998
FDK (Sanyo Plant) (Kosai site)	July 1998 October 1998
Fujitsu Components (Technical Development Center)	July 1998
Fujitsu Peripherals (Headquarters Plant)	August 1998

Certified plant/site	Date of certification
Shinano Fujitsu	August 1998
Fujitsu Quantum Devices (Headquarters site)	August 1998
Fujitsu Access (FDS Shimodate Plant) (FDS Kyowa Plant)	September 1998 November 1998
(FDS Sekijo Plant)	December 1998
(FDS Shimodate area integrated) (Headquarters site)	August 1999 November 2000
Fujitsu Miyagi Electronics	November 1998
Fujitsu Hitachi Plasma Display	November 1998
Fujitsu Isotec	December 1998
Fujitsu Kasei (Headquarters/Yokohama Plant)	December 1998
Fujitsu Media Devices (Suzaka site)	September 1997
(Shin-Yokohama site, other)	February 1999
Fujitsu Automation (Headquarters)	March 1999
Shimane Fujitsu	March 1999
Fujitsu Network Solutions	March 1999
Fujitsu Nishi-Nihon Communication Systems	June 1999
Fujitsu FIP (Headquarters, other)	December 1999
Fujitsu Logistics (Tokyo Distribution Center)	December 1999
Fujitsu Support & Service	March 2000
Fujitsu Kyushu Digital Technology	March 2000

Certified plant/site	Date of certification
Fujitsu CoWorCo (Headquarters and main sites)	March 2000
Fujitsu Wireless Systems	April 2000
Fujitsu Business Systems (Support Services Headquarters)	July 2000
Fujitsu Oita Software Laboratories	October 2000
Fujitsu Display Technologies	February 2001
Fujitsu Devices (Headquarters and Central Distribution Center) (Kyoto Sales Office)	March 2001 April 2003
Fujitsu Kansai Systems (Headquarters)	May 2001
Fujitsu Personal System (Headquarters)	August 2001
Fujitsu AMD Semiconductor (Kadota/Takaku Plant)	March 2002
Fujitsu Leasing (Headquarters)	March 2002
Totalizator Engineering	September 2000
Fujitsu Kochi Systems Engineering	August 2002
Fujitsu Nagano Systems Engineering	January 2003

#### Fujitsu Group [Overseas]

Certified plant/site	Date of certification
Fujitsu ICL Espana (Malaga factory)	April 1998
Fujitsu Microelectronics Malaysia	May 1998
Fujitsu (Thailand)	May 1998
Fujitsu Quantum Devices Singapore	May 1998
Fujitsu Component Malaysia	July 1998
Fujitsu Computer Products Corporation of the Philippines	November 1998
Jiangsu Fujitsu Telecommunications Technology	December 1998
Fujitsu Network Communications	April 1999
Fujitsu Computer Products of Vietnam	October 1999
Fujitsu IT Holdings (FTSI-Batavia, Illinois)	June 2001
Xian Fujitsu Telecommunications Equipment	June 2001
Nantong Fujitsu Microelectronics	June 2001
Fujitsu Telecommunications Europe (Birmingham)	January 2002
(Cambridge)	January 2002

#### Fujitsu

Certified plant/site	Date of certification
Numazu Plant (BS7750 certification acquisition)	September 1995
Shift to ISO14001	September 1996
Nasu Plant	March 1996
Iwate Plant	September 1996
Mie Plant	December 1996
Aizuwakamatsu Plant	February 1997
Nagano Plant	March 1997
Kumagaya Plant	June 1997
Akashi Plant	August 1997
Oyama Plant	November 1997
Fujitsu Laboratories (Atsugi area)	November 1998
Minami-Tama Plant	February 1999
Solution Business Group (Kyushu R&D Center)	February 2000
Kawasaki area (Kawasaki Plant, Akiruno TC, YRP Research & Development Center, others)	March 2000
Tatebayashi Systems Center	March 2000
Kansai Systems Laboratory	January 2002
Headquarters (corporate strategy, personnel, advertising, general affairs)	March 2003
Kyoto Branch Office / Shiga Branch	April 2003

## Green Product Evaluation Standard

Fujitsu began conducting product environmental assessments using 43 criteria in fiscal 1993 with the aim of designing new products to prevent pollution and lower the environmental burden. “Green Products” are those with superior environmental performance characteristics. To earn this designation, products must score at least 90 points on a product environmental assessment and conform to all the relevant Green Product Evaluation Standards the company has adopted as a global environmental measure.

### Common Standards Applicable to All Products

Major category	Characteristic	Common standards
Product environmental assessment	Overall assessment	Overall score of at least 90 points, with no score of zero on any assessment criterion
Resource conservation	Product durability	(1) Ensuring expandable product structures that support functional or performance improvements (Not applicable to electronic parts, portable products, unit products, customer-specified products)
	Product warranties	(2) Extension of unconditional manufacturer’s warranties on products sold in Japan by six months and of those for PC products by one year (Not applicable to electronic parts, products for markets outside Japan, customer-specified products)
	Reduction in product weight, volume, number of parts	(3) Achievement of at least one of the following criteria for product weight, volume and number of parts, plus substantial improvements in remaining criteria relative to past products: 1) 10% + reduction in product weight compared to past products, or 30% + reduction per unit of performance 2) 10% + reduction in volume compared to past products, or 30% + reduction per unit of performance 3) 10% + reduction in number of parts compared to past products, or 30% + reduction per unit of performance
	Ratio of recyclable or easily recyclable plastics used	(4) Achievement of a usage ratio of recyclable or easily recyclable plastics of at least 90% for products with a minimum of 25 grams of plastic by weight (Not applicable to electronic parts, PCBs inside products)
	Potential resource recyclability	(5) Use of potentially resource-recyclable parts for a minimum of 75% of product weight; minimum use of 50% for portable products with LCD unit or monitor (Not applicable to electronic parts)
Recyclable design	Plastic parts	(6) Labeling of all plastic parts (excluding packaging materials) weighing more than 25 grams and/or of parts with flat surface areas exceeding 200 mm <sup>2</sup> ; maximized labeling of materials irrespective of weight or surface area (Not applicable to electronic parts)
		(7) Minimized painting or coating of any plastic parts weighing more than 25 grams (Not applicable to electronic parts)
		(8) Elimination of PVC use in plastic parts (Not applicable to cable coatings, insulation materials for electronic parts)
	Primary/secondary batteries	(9) Products whose batteries are changed by the user: adoption of structures permitting battery exchange or removal
		(10) Products whose batteries are not changed by the user: adoption of structures permitting battery exchange or removal without complete PCB exchange
	Disassembly and separation capabilities	(11) Permitting separation and disassembly into component materials or units (separated as devices, PCBs, cables, plastic parts, and metal parts) by hand or with general-purpose tools (Not applicable to electronic parts, equipment with automatic movement features, artificial satellites, undersea relay devices, Defense Agency products, wireless equipment covered by radio spectrum-related legislation)
		(12) Creation of manuals for equipment disassembly (Not applicable to electronic parts, secret components)
Limitation of chemicals contents	Use of PBB, PBBO or chlorinated hydrocarbons	(13) Freedom of plastic parts from PBB (polybrominated biphenyl), PBBO (polybrominated biphenyl oxide), or chlorinated hydrocarbons
		(14) Freedom of printed circuit boards from PBB (polybrominated biphenyl), PBBO (polybrominated biphenyl oxide) or chlorinated hydrocarbons
	Lead	(15) Freedom of in-house manufactured products from lead solder
Prevention of global warming	LCA	(16) Assessment of product carbon dioxide emissions
Energy saving	Energy-saving function	(17) Products to be equipped with an energy-saving function (Not applicable to electronic parts, customer-specified products, equipment for which an energy-saving function is not permitted)
	Power consumption	(18) Reduction in average power consumption per unit of product performance from previous products
Environmental information disclosure	—	(19) Inclusion in product documentation of information on waste product collection and recycling system (Not applicable to electronic parts, customer-specified products)
Manual	—	(20) All documents for external use to be produced using a minimum of 70% recycled paper; elimination of plastic coatings from cover sheets
Packaging	Resource conservation	(21) Use of a minimum of 70% recycled paper in cardboard
		(22) Minimized use of packaging materials: over 5% reduction in packaging materials compared with previous products, or reduction of empty space to less than 30%
	Recyclable design	(23) Elimination of all kinds of plastic attachments that prevent recycling from paper materials
		(24) Compliance of labels on packaging and plastic parts with the following standards: 1) Labeling of all plastic parts weighing more than 20 grams (more than 10 grams in case of plastic foam) 2) Location of labels in easy to see positions
		(25) Elimination of PVCs from plastic materials used in packaging
		(26) Use of only easily recyclable plastics or paper as protective bag materials
	Hazardous chemical restrictions	(27) Freedom from PBB (polybrominated biphenyl) or PBBO (polybrominated biphenyl oxide)

### Category-specific Standards (Electronic Parts)

Major category	Characteristic	Category-specific standards
Environmental ISO	All electronic devices	(1) Establishment and operation of EMS meeting ISO14001 standards or similar EMS at all manufacturing and related sites
Chemical substances information disclosure	LSIs	(2) Ability to issue usage-free certificates for any chemicals whose use in a given product is prohibited
		(3) Ability to label products with the amounts of compounds containing any of the following chemicals: arsenic, halogens, antimony, organic phosphorus, nickel
Chemical substances composition regulations	LSIs	(4) Ability to use lead-free solder in manufacturing
Packaging materials	Recyclable design	(5) Restriction of use of expanded plastic foam in packaging materials to maximum of 20% of total packaging weight

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## Category-specific Standards (Portable/compact products weighing less than 3 kg)

Major category	Characteristic	Category-specific standards
Resource conservation	Recycled plastics/reused parts (magnetic disk devices, scanners)	(1) Use of at least one or more recycled plastic or reused part for product parts
Energy saving	Compliance with the Energy Saving Law (magnetic disk devices)	(2) Inclusion in product catalogs of a display based on the Energy Saving Law, plus attainment of target standards for fiscal 2005 (top runners) specified in the Energy Saving Law
	Compliance with the International Energy Star Program (scanners)	(3) Attainment of restraint values for the low-electricity mode specified in the International Energy Star Program and completion of application for registration
Chemical substances composition regulations	LCD units and products employing them	(4) Assessment of mercury content in LCD fluorescent pipes
		(5) Restriction of mercury content in LCD fluorescent pipes to 5 mg or less per pipe
Packaging materials	Recyclable design	(6) Restriction of use of plastic foam in packaging materials to maximum of 10% of total packaging weight

## Category-specific Standards (Medium-sized/large products weighing 3 kg or more)

Major category	Characteristic	Category-specific standards
Resource conservation	Recycled plastics/reused parts (electronic calculators, magnetic disk devices, scanners)	(1) Use of at least one or more recycled plastic or reused part for product parts
Energy saving	Compliance with the Energy Saving Law (electronic calculators, magnetic disk devices)	(2) Inclusion in product catalogs of a display based on the Energy Saving Law, plus attainment of target standards for fiscal 2005 (top runners) specified in the Energy Saving Law
	Compliance with the International Energy Star Program (electronic calculators, scanners)	(3) Attainment of restraint values for the low-electricity mode specified in the International Energy Star Program and completion of application for registration
Chemical substances composition regulations	LCD units and products employing them	(4) Assessment of mercury content in LCD fluorescent pipes
		(5) Restriction of mercury content in LCD fluorescent pipes to under 5 mg per pipe
Packaging materials	Recyclable design	(6) Restriction of use of plastic foam in packaging materials to maximum of 10% of total packaging weight

## Category-specific Standards (Personal computers)

Major category	Characteristic	Category-specific standards
Resource conservation	Maintenance parts supply	(1) Guaranteed supply of maintenance parts for a minimum of 5 years after completion of manufacture
	Recycled plastics/reused parts	(2) Use of at least one or more recycled plastics or reused parts for product parts
	Ratio of reused resources	(3) Completion of calculation of resources reuse ratio for the following machinery based on the Effective Resources Use Promotion Law <ul style="list-style-type: none"> <li>• Desktop PCs, main body: 50% or more</li> <li>• Notebook PCs: 20% or more</li> <li>• CRTs/LCDs: 55% or more</li> </ul>
Recyclable design	Plastic parts	(4) Use of polymers (homo-polymers, co-polymers) or polymer alloys for any plastic parts of products weighing 25 grams or more
		(5) Elimination of metal implants (types of inserts) for any plastic parts of products weighing 25 grams or more (not applicable to metal implants allowing disassembly with general-purpose tools)
Chemical substances composition regulations	Primary/secondary batteries	(6) Freedom from cadmium, mercury and lead
Energy saving	CRT	(7) Freedom from cadmium
	Compliance with the Energy Saving Law	(8) Inclusion in product catalogs of a display based on the Energy Saving Law, plus attainment of target standards for fiscal 2005 (top runners) specified in the Energy Saving Law
	Compliance with the International Energy Star Program	(9) Attainment of electricity consumption values during low-power mode operation and in the deep sleep display mode specified in the International Energy Star Program and completion of application for registration
Environmental information disclosure	—	(10) Normally operational after four or more weeks without power supply (with disappearance of such timer data as date and time not considered a fault)
		(11) Inclusion in product documentation of information on long-term use
		(12) Inclusion in product documentation of information on cadmium, cyanogens, lead, chromium, arsenic, mercury, fluorine, boron, selenium and antimony, if included in the product
Packaging materials	Recyclable design	(13) Inclusion in product documentation of information on energy consumption (power on/off status, maximum and minimum electricity consumption, ways to minimize energy consumption)
		(14) Satisfaction of the below standard values for plastic foam use <ul style="list-style-type: none"> <li>• Restriction of use of plastic foam in packaging materials for main PC bodies to maximum of 10% of total packaging weight</li> <li>• Restriction of use of plastic foam in packaging materials for displays to maximum of 20% of total packaging weight</li> </ul>

## Category-specific Standards (Printers/Large-format printers)

Major category	Characteristic	Category-specific standards	
Resource conservation	Maintenance parts supply	(1) Supply of maintenance parts guaranteed for a minimum of 5 years after completion of manufacture	
Recyclable design	Recycled plastics/reused parts	(2) Use of recycled plastics or reused parts in product parts	
	Plastic parts	(3) Use of polymers (homo-polymers, co-polymers) or polymer alloys for any plastic parts or large cases weighing 25 grams or more	
		(4) Use of maximum of four types of separable polymers (homo-polymers, co-polymers) or polymer alloys for any plastic part or case weighing 25 grams or more	
	Ease of separation/decomposition	(5) Easy identification of product joints required for separation	
Chemical substances composition regulations	Plastic	(6) Provision of grip points and manipulation space for dismantling tools in products	
		(7) No use of lead or cadmium in plastic parts comprising cases or case parts	
		Primary/secondary batteries	(8) Freedom from cadmium, mercury and lead
		Toner, ink, ink ribbons	(9) Freedom from R-number substances cited in German government hazardous substances ordinance §4a
		(10) Freedom from carcinogens (TRGS905, TRGS900: Care.Cat1, 2, 3 in EC category or MAK value list 1, 2, 3)	
		(11) Freedom from mutagenic substances (TRGS905, TRGS900: Mut.Cat1, 2, 3 in EC category or M1, 2, 3)	
	(12) Freedom from level 1, 2A, 3B carcinogens in classification of IARC (International Agency for Research on Cancer)		
Photo conductor drums	(13) Freedom from cadmium, mercury, lead and hexavalent chromium and its compounds		
Chemical substances usage regulations	Manufacturing process	(14) Freedom from cadmium, mercury and lead	
		(15) Freedom from ozone-depleting substances (substances listed in appendix tables A, B, C of Montreal Protocol) in manufacturing process	
Energy saving	Compliance with International Energy Star Program	(16) Attainment of electricity consumption values in the low-electricity mode specified in the International Energy Star Program and completion of application for registration	
	With power OFF	(17) Power consumption of 2W or below when power OFF	
	Guarantee of proper operation after long-term neglect	(18) Normal operation assured after four weeks or more out of use with power cord unplugged	
Environmental information provision	—	(19) Description of information concerning energy consumption (power OFF status, maximum consumption electricity, method of minimizing energy consumption) in documents provided with products	
Collection/recycling systems	Toner cartridges	(20) Collection and recycling of toner cartridges	
Printing paper	Use of recycled paper	(21) Ability to use paper recycled from wastepaper for printing	
	Reduction of usage volume	(22) Inclusion of functions to reduce volume of paper used in printing (two-sided printing, reduced printing, underprint, etc.)	
Packaging materials	Recyclable design	(23) Restriction of use of plastic foam in packaging materials to maximum 20% of total packaging weight	

Results for PRTR Law-compatible Substance Balance in Fujitsu Group

(Unit: kg)

Name of Class I designated chemicals	Number of Class I designated chemicals	Use/ processing volume	Emission volume				Transferred volume		Volume recycled/ removed/ consumed
			Emission into air	Emission into public area water	Emission into soil at site (except landfill)	Landfill at site	Transfer into sewerage	Transfer off-site (except into sewerage)	
Zinc compounds (water-soluble)	1	6589.4	0.0	0.0	0.0	0.0	0.0	0.0	6589.4
2-aminoethanol	16	477433.0	143.9	420.0	0.0	0.0	0.0	335612.8	141256.3
Antimony and its compounds	25	418.0	0.0	0.0	0.0	0.0	0.6	9.0	409.0
4,4'-Polymer of 4,4'-isopropylidenediphenol and 1-chloro-2,3-epoxypropane (or bisphenol A type epoxy resin)	30	7818.6	240.0	0.0	0.0	0.0	0.0	4998.1	2580.5
Ethylene glycol	43	19319.2	14.9	403.0	0.0	0.0	0.0	8037.4	10864.0
Ethylene glycol monoethyl ether	44	7273.8	875.4	0.0	0.0	0.0	0.0	5402.4	996.0
Ethylene glycol monomethyl ether	45	774.6	0.0	0.0	0.0	0.0	0.0	774.6	0.0
Xylene	63	313899.7	7861.5	0.0	0.0	0.0	0.0	23584.4	282453.9
Silver and its water-soluble compounds	64	458.0	0.0	0.0	0.0	0.0	0.6	8.8	448.6
Chlorodifluoromethane (or HCFC-22)	85	1442.4	144.24	0.0	0.0	0.0	0.0	0.0	0.0
Cobalt and its compounds	100	4443.0	0.0	0.0	0.0	0.0	0.0	61.0	4382.0
2-ethoxyethyl acetate (or ethylene glycol monoethyl ether acetate)	101	1984.0	5.3	0.0	0.0	0.0	0.0	1978.7	0.0
Inorganic cyanide compounds (except complex salts and cyanates)	108	38630.8	0.0	20.0	0.0	0.0	0.0	12.6	38598.2
o-dichlorobenzene	139	18989.2	5146.8	0.0	0.0	0.0	0.0	13842.4	0.0
Dichloropentafluoropropane (or HCFC-225)	144	250.0	250.0	0.0	0.0	0.0	0.0	0.0	0.0
Copper salts (water-soluble, except complex salts)	207	811713.7	0.0	557.1	0.0	0.0	64.8	8037.0	803054.8
Trichlorofluoromethane (CFC-11)	217	104.6	104.6	0.0	0.0	0.0	0.0	0.0	0.0
1,3,5-trimethylbenzene	224	4216.4	161.8	0.0	0.0	0.0	0.0	0.0	4054.6
Toluene	227	19864.5	13688.1	7.0	0.0	0.0	0.0	766.5	5402.9
Lead and its compounds	230	191263.8	0.0	28.8	0.0	0.0	0.2	9591.6	181643.2
Nickel	231	59318.8	0.0	576.5	0.0	0.0	8.0	202.6	58531.7
Nickel compounds	232	106607.8	0.0	594.5	0.0	0.0	2.2	2196.2	103814.9
Nonylphenol	242	518.6	18.7	0.0	0.0	0.0	0.0	499.9	0.0
Arsenic and its inorganic compounds	252	158.8	0.0	0.0	0.0	0.0	12.1	69.0	77.7
Hydrazine	253	1208.0	489.6	0.1	0.0	0.0	0.0	612.0	106.3
Hydroquinone	254	381.3	0.0	0.0	0.0	0.0	0.0	202.6	178.7
Pyrocatechol	260	12985.0	0.0	0.0	0.0	0.0	0.0	12985.0	0.0
Phenol	266	9094.1	2370.0	0.0	0.0	0.0	0.0	6590.7	133.4
Hydrogen fluoride and its water-soluble salts	283	214709.3	1442.3	32301.7	0.0	0.0	1024.3	127522.1	52419.0
Boron and its compounds	304	28277.7	0.0	5200.0	0.0	0.0	0.0	5206.5	17871.2
Poly(oxyethylene) alkyl ether (alkyl C=12-15)	307	2908.0	1.9	18.0	0.0	0.0	0.0	2809.0	79.1
Poly(oxyethylene) nonylphenyl ether	309	468.0	0.0	94.0	0.0	0.0	0.0	0.0	374.0
Formaldehyde	310	8019.4	0.0	0.0	0.0	0.0	0.0	20.0	7999.4
Manganese and its compounds	311	995779.3	0.0	52.6	0.0	0.0	0.0	29345.3	966381.4
Methacrylic acid	314	360.0	0.0	360.0	0.0	0.0	0.0	0.0	0.0
2-(diethylamino)ethyl methacrylate	317	265.5	0.0	0.0	0.0	0.0	0.0	0.0	265.5
Molybdenum and its compounds	346	252.0	0.0	0.0	0.0	0.0	0.0	8.0	244.0
<b>Total</b>		<b>3368198.4</b>	<b>34257.1</b>	<b>40633.3</b>	<b>0.0</b>	<b>0.0</b>	<b>1112.2</b>	<b>600986.1</b>	<b>2691209.7</b>

Effects on the Ecology and Standards for Emissions by Plants of the Main PRTR-targeted Substances Used by the Fujitsu Group

Name of Class I designated Chemicals	Number of Class I designated chemicals	Status when in use	Ministry of the Environment Ecological Toxicity [Unit: mg/ℓ] *2									Standard air pollution value (Standard for plant emissions)		Standard water pollution value (Standard for discharge from plant)	
			Algae			Water fleas			Fish			Standard value under Law on Air Pollution Prevention	Fujitsu internal management value (referenc standard)	Standard value under Law on Water Pollution Prevention	Fujitsu internal management standard value (reference)
			Growth prevention		Acute swimming prevention	Breeding prevention		Acute toxicity	Extended toxicity						
			72hr ~ EC50	72hr ~ NOEC	48hr ~ EC50	21day ~ EC50	21day ~ NOEC	96hr ~ LC50	14day ~ LC50	14day ~ LC50					
Manganese and its compounds	311	Liquid	-	-	-	-	-	-	-	-	-	-	-	10mg/ℓ	1mg/ℓ
Copper salts (water-soluble, except complex salts)	207	Liquid	-	-	-	-	-	-	-	-	-	-	-	10mg/ℓ	1mg/ℓ
2-aminoethanol*1	16	Liquid (organic solvent)	2.8	1	97	2.5	0.85	>100	>100	100	-	-	-	-	-
Xylene	63	Liquid (organic solvent)	-	-	-	-	-	-	-	-	-	100ppm	-	-	5mg/ℓ
Toluene	227	Liquid (organic solvent)	43.3	9.7	4.13	2.35	1.17	25.4	10.5	0.72	-	50ppm	-	-	5mg/ℓ

\*1 2-aminoethanol is used primarily in the electronic parts washing process within a closed system. It is then refined for reuse or collected without being discharged into air or water areas as waste.

\*2 Ministry of the Environment Ecology Toxicity

- Algae growth prevention test: Effect on growth and breeding of algae during exposure to chemical substances for 72 hours, targeting algae (unicellular green algae) that are producers in the water system food chain (50% growth prevention effect concentration: EC 50; no-effect concentration: NOEC).
- Water flea acute swimming prevention test: Effect on water flea swimming activity during exposure to chemical substances for 48 hours, targeting water fleas (crustaceans) that are primarily consumers in the water system food chain (50% swimming prevention effect concentration: EC 50).
- Water flea breeding prevention test: Effect on water flea breeding activity during exposure to a chemical substance for 21 days, targeting water fleas (crustaceans) that are primarily consumers in the water system food chain (50% breeding prevention effect concentration: EC 50; no-effect concentration: NOEC).
- Fish acute toxicity test: Effect on fish during exposure to chemical substances for 96 hours, targeting fish (Japanese killifish) that are upper-level consumers in the water system food chain (50% lethal concentration: LC 50).
- Fish extended toxicity test: Effect on fish during exposure to a chemical substance for 14 days, targeting fishes (Japanese killifish) that are upper-level consumers in the water system food chain (50% lethal concentration: LC 50; no-effect concentration: NOEC).
- EC50: Concentration of a tested substance calculated when the effect is apparent in 50% of tested organisms compared with a control group (group not exposed to the tested substance). For algae, this is the concentration at which the cell density decreases to 50% in 72 hours.
- NOEC: The highest test concentration at which the effect on tested organisms does not indicate significant differences compared with a control group.
- LC50: Concentration of tested substance calculated at a level causing death to 50% of tested organisms.