

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/R] 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 (reference 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-NOEC					
Manganese and its compounds	311	Solid, Metal	-	-	-	-	-	-	-	-	-	-	-	10mg/l	1mg/l
Copper salts (water-soluble, except complex salts)	207	Liquid, Solid	-	-	-	-	-	-	-	-	-	-	-	3mg/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			
o-Xylene	63	Liquid (organic solvent)	23	21	1	0.93	0.63	7.4	9	1.9		100ppm			
p-Xylene	63	Liquid (organic solvent)	16.8	8	6.9	2.06	1.29	11.3	5.32	0.413	-	100ppm	-	-	-
Toluene	227	Liquid (organic solvent)	43.3	9.7	4.13	2.35	1.17	25.4	10.5	0.72	-	50ppm	-	-	-

*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.