Controlled Substance Standards

This following table sets out generally accepted limits on concentrations of commonly controlled substances that may be contained in trade waste discharged to the public wastewater system.
In addition, to the generally accepted limits on concentrations of controlled substances that may be contained in trade waste discharged to the public wastewater system, individual agreements may contain mass limits to control the total mass of a controlled substance discharged.

Note – less common controlled substances which are not presented on the table below may have controlled limits. Please contact Watercare for further information.

Parameter	Limits* mg/l	Reasons
Ammonia	200	May endanger sewer workers; significantly contribute to the nutrient loading on the receiving environment.
Anionic Surfactants - As mg/l methylene blue active substance (MBAS)	200	High MBAS can adversely affect the efficiency of activated sludge plants, cause foaming and impair the aesthetics of the receiving waters.
Boron	25	Boron is not removed by conventional wastewater treatment.
Bromine as Br_2	5	High concentrations could affect the health and safety of sewer workers.
Bio-chemical Oxygen Demand (BOD_5)	1,000	High BOD can overload treatment plants
Chemical Oxygen Demand (COD)	2,000	High COD can overload treatment plants
Chlorine (Cl_2 free chlorine)	3	Can endanger sewer workers, cause corrosion of the wastewater collection system.
Cyanide as CN^-	3	Can produce toxic atmospheres in the sewer and endanger sewer workers.
Fluoride as F^-	20	Not removed by conventional wastewater treatment.
Kjeldahl nitrogen	200	May significantly contribute to the nutrient load discharged to the receiving environment.
Oil & Grease	200	Can cause sewer blockages, and may adversely affect the treatment process
pH (units)	6.0 to 10.5	Low pH can cause corrosion of sewer system, generate odours which could cause a public nuisance; release toxic H_2S gas which could endanger sewer workers
Sulphate	500	May adversely affect sewage system, may increase the potential for the generation of sulphides.
Sulphide	5	May cause corrosion of sewer system, particularly the non-wetted part of the sewer; generate odours which could cause a public nuisance; release toxic H_2S gas which could endanger sewer workers.
Suspended Solids	1,000	Can cause sewer blockages and overload the WWTP
Temperature (°C)	40	High temperatures: cause increased damage to sewer structures, increase the potential for anaerobic conditions to form in the wastewater, promote the release of gases such as H2S and NH3, can endanger sewer workers.
Total Phosphorus as P	50	May significantly contribute to the nutrient load discharged to the receiving environment.
Metals		
Arsenic	1	Can inhibit activated sludge treatment and digestion.
Barium	5	Can inhibit activated sludge treatment and digestion
Bromine	5	Can inhibit activated sludge treatment and digestion.
Cadmium	1	Can inhibit activated sludge treatment and digestion.
Chromium (Total) Chromium (vi)	25 5	Can inhibit activated sludge treatment and digestion.
Cobalt	10	Can inhibit activated sludge treatment and digestion
Copper	10	Can inhibit activated sludge treatment and digestion
Lead	2	Can inhibit activated sludge treatment and digestion

Parameter	Limits* mg/l	Reasons
Manganese	20	Can inhibit activated sludge treatment and digestion
Mercury	0.03	Can inhibit activated sludge treatment and digestion
Molybdenum	10	Can inhibit activated sludge treatment and digestion
Nickel	5	Can inhibit activated sludge treatment and digestion
Selenium	5	Can inhibit activated sludge treatment and digestion
Silver	5	Can inhibit activated sludge treatment and digestion
Tin	10	Can inhibit activated sludge treatment and digestion
Zinc	15	Can inhibit activated sludge treatment and digestion
Acetone	100	Can endanger sewer workers and treatment processes
Benzene	1	Can endanger sewer workers and treatment processes
Butanone	100	Can endanger sewer workers and treatment processes
Ethylbenzene	5	Can endanger sewer workers and treatment processes
Ethylene Glycol	50	Can endanger sewer workers and treatment processes
Formaldehyde	30	Can endanger sewer workers and treatment processes
Total Petroleum Hydrocarbons C7 - C14 C7 – C36	 30 50	 Can endanger sewer workers and treatment processes Can endanger sewer workers and treatment processes
Tri-methyl Benzene	5	Can endanger sewer workers and treatment processes
Toluene	5	Can endanger sewer workers and treatment processes
Xylene	5	Can endanger sewer workers and treatment processes

* Value may be lower dependent on which wastewater treatment plant the discharge is treated at.