**Section 728.TABLE U Universal Treatment Standards (UTS)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Regulated Constituent-Common Name | CAS1 No. | | Wastewater Standard Concentration2 (in mg/ℓ ) | Nonwastewater Standard Concentration3 (in mg/kg unless noted as "mg/ℓ TCLP") |
|  | | | | |
| Acenaphthylene | | 208-96-8 | 0.059 | 3.4 |
| Acenaphthene | | 83-32-9 | 0.059 | 3.4 |
| Acetone | | 67-64-1 | 0.28 | 160 |
| Acetonitrile | | 75-05-8 | 5.6 | 38 |
| Acetophenone | | 96-86-2 | 0.010 | 9.7 |
| 2-Acetylaminofluorene | | 53-96-3 | 0.059 | 140 |
| Acrolein | | 107-02-8 | 0.29 | NA |
| Acrylamide | | 79-06-1 | 19 | 23 |
| Acrylonitrile | | 107-13-1 | 0.24 | 84 |
|  | |  |  |  |
| Aldrin | | 309-00-2 | 0.021 | 0.066 |
| 4-Aminobiphenyl | | 92-67-1 | 0.13 | NA |
| Aniline | | 62-53-3 | 0.81 | 14 |
| o-Anisidine (2-methoxyaniline) | | 90-04-0 | 0.010 | 0.66 |
| Anthracene | | 120-12-7 | 0.059 | 3.4 |
| Aramite | | 140-57-8 | 0.36 | NA |
| a-BHC | | 319-84-6 | 0.00014 | 0.066 |
| b-BHC | | 319-85-7 | 0.00014 | 0.066 |
| d-BHC | | 319-86-8 | 0.023 | 0.066 |
| γ-BHC | | 58-89-9 | 0.0017 | 0.066 |
| Benz(a)anthracene | | 56-55-3 | 0.059 | 3.4 |
| Benzal chloride | | 98-87-3 | 0.055 | 6.0 |
| Benzene | | 71-43-2 | 0.14 | 10 |
| Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene) | | 205-99-2 | 0.11 | 6.8 |
| Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene) | | 207-08-9 | 0.11 | 6.8 |
| Benzo(g,h,i)perylene | | 191-24-2 | 0.0055 | 1.8 |
| Benzo(a)pyrene | | 50-32-8 | 0.061 | 3.4 |
| Bromodichloromethane | | 75-27-4 | 0.35 | 15 |
| Methyl bromide (Bromomethane) | | 74-83-9 | 0.11 | 15 |
| 4-Bromophenyl phenyl ether | | 101-55-3 | 0.055 | 15 |
| n-Butyl alcohol | | 71-36-3 | 5.6 | 2.6 |
|  | |  |  |  |
| Butyl benzyl phthalate | | 85-68-7 | 0.017 | 28 |
| 2-sec-Butyl-4,6-dinitrophenol (Dinoseb) | | 88-85-7 | 0.066 | 2.5 |
| Carbon disulfide | | 75-15-0 | 3.8 | 4.8 mg/ℓ TCLP |
| Carbon tetrachloride | | 56-23-5 | 0.057 | 6.0 |
| Chlordane (α and γ isomers) | | 57-74-9 | 0.0033 | 0.26 |
| p-Chloroaniline | | 106-47-8 | 0.46 | 16 |
| Chlorobenzene | | 108-90-7 | 0.057 | 6.0 |
| Chlorobenzilate | | 510-15-6 | 0.10 | NA |
| 2-Chloro-1,3-butadiene | | 126-99-8 | 0.057 | 0.28 |
| p-Chloro-m-cresol | | 59-50-7 | 0.018 | 14 |
| Chlorodibromomethane | | 124-48-1 | 0.057 | 15 |
| Chloroethane | | 75-00-3 | 0.27 | 6.0 |
| bis(2-Chloroethoxy)methane | | 111-91-1 | 0.036 | 7.2 |
| bis(2-Chloroethyl)ether | | 111-44-4 | 0.033 | 6.0 |
| 2-Chloroethyl vinyl ether | | 110-75-8 | 0.062 | NA |
| Chloroform | | 67-66-3 | 0.046 | 6.0 |
| bis(2-Chloroisopropyl)ether | | 39638-32-9 | 0.055 | 7.2 |
| Chloromethane (Methyl chloride) | | 74-87-3 | 0.19 | 30 |
| 2-Chloronaphthalene | | 91-58-7 | 0.055 | 5.6 |
| 2-Chlorophenol | | 95-57-8 | 0.044 | 5.7 |
| 3-Chloropropylene | | 107-05-1 | 0.036 | 30 |
| Chrysene | | 218-01-9 | 0.059 | 3.4 |
| p-Cresidine | | 120-71-8 | 0.010 | 0.66 |
| o-Cresol | | 95-48-7 | 0.11 | 5.6 |
| m-Cresol (difficult to distinguish from p-cresol) | | 108-39-4 | 0.77 | 5.6 |
| p-Cresol (difficult to distinguish from m-cresol) | | 106-44-5 | 0.77 | 5.6 |
| Cyclohexanone | | 108-94-1 | 0.36 | 0.75 mg/ℓ TCLP |
| o,p'-DDD | | 53-19-0 | 0.023 | 0.087 |
| p,p'-DDD | | 72-54-8 | 0.023 | 0.087 |
| o,p'-DDE | | 3424-82-6 | 0.031 | 0.087 |
| p,p'-DDE | | 72-55-9 | 0.031 | 0.087 |
| o,p'-DDT | | 789-02-6 | 0.0039 | 0.087 |
| p,p'-DDT | | 50-29-3 | 0.0039 | 0.087 |
| Dibenz(a,h)anthracene | | 53-70-3 | 0.055 | 8.2 |
| Dibenz(a,e)pyrene | | 192-65-4 | 0.061 | NA |
| 1,2-Dibromo-3-chloropropane | | 96-12-8 | 0.11 | 15 |
| 1,2-Dibromoethane/Ethylene dibromide | | 106-93-4 | 0.028 | 15 |
| Dibromomethane | | 74-95-3 | 0.11 | 15 |
| m-Dichlorobenzene | | 541-73-1 | 0.036 | 6.0 |
| o-Dichlorobenzene | | 95-50-1 | 0.088 | 6.0 |
| p-Dichlorobenzene | | 106-46-7 | 0.090 | 6.0 |
| Dichlorodifluoromethane | | 75-71-8 | 0.23 | 7.2 |
| 1,1-Dichloroethane | | 75-34-3 | 0.059 | 6.0 |
| 1,2-Dichloroethane | | 107-06-2 | 0.21 | 6.0 |
| 1,1-Dichloroethylene | | 75-35-4 | 0.025 | 6.0 |
| trans-1,2-Dichloroethylene | | 156-60-5 | 0.054 | 30 |
| 2,4-Dichlorophenol | | 120-83-2 | 0.044 | 14 |
| 2,6-Dichlorophenol | | 87-65-0 | 0.044 | 14 |
| 2,4-Dichlorophenoxyacetic acid/2,4-D | | 94-75-7 | 0.72 | 10 |
| 1,2-Dichloropropane | | 78-87-5 | 0.85 | 18 |
| cis-1,3-Dichloropropylene | | 10061-01-5 | 0.036 | 18 |
| trans-1,3-Dichloropropylene | | 10061-02-6 | 0.036 | 18 |
| Dieldrin | | 60-57-1 | 0.017 | 0.13 |
| Diethyl phthalate | | 84-66-2 | 0.20 | 28 |
| p-Dimethylaminoazobenzene | | 60-11-7 | 0.13 | NA |
| 2,4-Dimethylaniline (2,4-xylidine) | | 95-68-1 | 0.010 | 0.66 |
| 2,4-Dimethyl phenol | | 105-67-9 | 0.036 | 14 |
| Dimethyl phthalate | | 131-11-3 | 0.047 | 28 |
| Di-n-butyl phthalate | | 84-74-2 | 0.057 | 28 |
| 1,4-Dinitrobenzene | | 100-25-4 | 0.32 | 2.3 |
| 4,6-Dinitro-o-cresol | | 534-52-1 | 0.28 | 160 |
| 2,4-Dinitrophenol | | 51-28-5 | 0.12 | 160 |
| 2,4-Dinitrotoluene | | 121-14-2 | 0.32 | 140 |
| 2,6-Dinitrotoluene | | 606-20-2 | 0.55 | 28 |
| Di-n-octyl phthalate | | 117-84-0 | 0.017 | 28 |
| Di-n-propylnitrosamine | | 621-64-7 | 0.40 | 14 |
| 1,4-Dioxane | | 123-91-1 | 12.0 | 170 |
| Diphenylamine (difficult to distinguish from diphenylnitrosamine) | | 122-39-4 | 0.92 | 13 |
| Diphenylnitrosamine (difficult to distinguish from diphenylamine) | | 86-30-6 | 0.92 | 13 |
| 1,2-Diphenylhydrazine | | 122-66-7 | 0.087 | NA |
| Disulfoton | | 298-04-4 | 0.017 | 6.2 |
| Endosulfan I | | 959-98-8 | 0.023 | 0.066 |
| Endosulfan II | | 33213-65-9 | 0.029 | 0.13 |
| Endosulfan sulfate | | 1031-07-8 | 0.029 | 0.13 |
| Endrin | | 72-20-8 | 0.0028 | 0.13 |
| Endrin aldehyde | | 7421-93-4 | 0.025 | 0.13 |
| Ethyl acetate | | 141-78-6 | 0.34 | 33 |
| Ethyl benzene | | 100-41-4 | 0.057 | 10 |
| Ethyl cyanide (Propanenitrile) | | 107-12-0 | 0.24 | 360 |
| Ethylene oxide | | 75-21-8 | 0.12 | NA |
| Ethyl ether | | 60-29-7 | 0.12 | 160 |
| bis(2-Ethylhexyl) phthalate | | 117-81-7 | 0.28 | 28 |
| Ethyl methacrylate | | 97-63-2 | 0.14 | 160 |
| Famphur | | 52-85-7 | 0.017 | 15 |
| Fluoranthene | | 206-44-0 | 0.068 | 3.4 |
| Fluorene | | 86-73-7 | 0.059 | 3.4 |
| Heptachlor | | 76-44-8 | 0.0012 | 0.066 |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD) | | 35822-46-9 | 0.000035 | 0.0025 |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF) | | 67562-39-4 | 0.000035 | 0.0025 |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF) | | 55673-89-7 | 0.000035 | 0.0025 |
| Heptachlor epoxide | | 1024-57-3 | 0.016 | 0.066 |
| Hexachlorobenzene | | 118-74-1 | 0.055 | 10 |
| Hexachlorobutadiene | | 87-68-3 | 0.055 | 5.6 |
| Hexachlorocyclopentadiene | | 77-47-4 | 0.057 | 2.4 |
| HxCDDs (All Hexachlorodibenzo-p-dioxins) | | NA | 0.000063 | 0.001 |
| HxCDFs (All Hexachlorodibenzofurans) | | 55684-94-1 | 0.000063 | 0.001 |
| Hexachloroethane | | 67-72-1 | 0.055 | 30 |
| Hexachloropropylene | | 1888-71-7 | 0.035 | 30 |
| Indeno (1,2,3-c,d) pyrene | | 193-39-5 | 0.0055 | 3.4 |
| Iodomethane | | 74-88-4 | 0.19 | 65 |
| Isobutyl alcohol | | 78-83-1 | 5.6 | 170 |
| Isodrin | | 465-73-6 | 0.021 | 0.066 |
| Isosafrole | | 120-58-1 | 0.081 | 2.6 |
| Kepone | | 143-50-0 | 0.0011 | 0.13 |
| Methacrylonitrile | | 126-98-7 | 0.24 | 84 |
| Methanol | | 67-56-1 | 5.6 | 0.75 mg/ℓ TCLP |
| Methapyrilene | | 91-80-5 | 0.081 | 1.5 |
| Methoxychlor | | 72-43-5 | 0.25 | 0.18 |
| 3-Methylcholanthrene | | 56-49-5 | 0.0055 | 15 |
| 4,4-Methylene bis(2-chloroaniline) | | 101-14-4 | 0.50 | 30 |
| Methylene chloride | | 75-09-2 | 0.089 | 30 |
| Methyl ethyl ketone | | 78-93-3 | 0.28 | 36 |
| Methyl isobutyl ketone | | 108-10-1 | 0.14 | 33 |
| Methyl methacrylate | | 80-62-6 | 0.14 | 160 |
| Methyl methansulfonate | | 66-27-3 | 0.018 | NA |
| Methyl parathion | | 298-00-0 | 0.014 | 4.6 |
| Naphthalene | | 91-20-3 | 0.059 | 5.6 |
| 2-Naphthylamine | | 91-59-8 | 0.52 | NA |
| o-Nitroaniline | | 88-74-4 | 0.27 | 14 |
| p-Nitroaniline | | 100-01-6 | 0.028 | 28 |
| Nitrobenzene | | 98-95-3 | 0.068 | 14 |
| 5-Nitro-o-toluidine | | 99-55-8 | 0.32 | 28 |
| o-Nitrophenol | | 88-75-5 | 0.028 | 13 |
| p-Nitrophenol | | 100-02-7 | 0.12 | 29 |
| N-Nitrosodiethylamine | | 55-18-5 | 0.40 | 28 |
| N-Nitrosodimethylamine | | 62-75-9 | 0.40 | 2.3 |
| N-Nitroso-di-n-butylamine | | 924-16-3 | 0.40 | 17 |
| N-Nitrosomethylethylamine | | 10595-95-6 | 0.40 | 2.3 |
| N-Nitrosomorpholine | | 59-89-2 | 0.40 | 2.3 |
| N-Nitrosopiperidine | | 100-75-4 | 0.013 | 35 |
| N-Nitrosopyrrolidine | | 930-55-2 | 0.013 | 35 |
| 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (1,2,3,4,6,7,8,9-OCDD) | | 3268-87-9 | 0.000063 | 0.005 |
| 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (1,2,3,4,6,7,8,9-OCDF) | | 39001-02-0 | 0.000063 | 0.005 |
| Parathion | | 56-38-2 | 0.014 | 4.6 |
| Total PCBs (sum of all PCB isomers, or all Aroclors)8 | | 1336-36-3 | 0.10 | 10 |
| Pentachlorobenzene | | 608-93-5 | 0.055 | 10 |
| PeCDDs (All Pentachlorodibenzo-p-dioxins) | | 36088-22-9 | 0.000063 | 0.001 |
| PeCDFs (All Pentachlorodibenzofurans) | | 30402-15-4 | 0.000035 | 0.001 |
| Pentachloroethane | | 76-01-7 | 0.055 | 6.0 |
| Pentachloronitrobenzene | | 82-68-8 | 0.055 | 4.8 |
| Pentachlorophenol | | 87-86-5 | 0.089 | 7.4 |
| Phenacetin | | 62-44-2 | 0.081 | 16 |
| Phenanthrene | | 85-01-8 | 0.059 | 5.6 |
| Phenol | | 108-95-2 | 0.039 | 6.2 |
| 1,3-Phenylenediamine | | 108-45-2 | 0.010 | 0.66 |
| Phorate | | 298-02-2 | 0.021 | 4.6 |
| Phthalic acid | | 100-21-0 | 0.055 | 28 |
| Phthalic anhydride | | 85-44-9 | 0.055 | 28 |
| Pronamide | | 23950-58-5 | 0.093 | 1.5 |
| Pyrene | | 129-00-0 | 0.067 | 8.2 |
| Pyridine | | 110-86-1 | 0.014 | 16 |
| Safrole | | 94-59-7 | 0.081 | 22 |
| Silvex (2,4,5-TP) | | 93-72-1 | 0.72 | 7.9 |
| 1,2,4,5-Tetrachlorobenzene | | 95-94-3 | 0.055 | 14 |
| TCDDs (All Tetrachlorodibenzo-p-dioxins) | | 41903-57-5 | 0.000063 | 0.001 |
| TCDFs (All Tetrachlorodibenzofurans) | | 55722-27-5 | 0.000063 | 0.001 |
| 1,1,1,2-Tetrachloroethane | | 630-20-6 | 0.057 | 6.0 |
| 1,1,2,2-Tetrachloroethane | | 79-34-5 | 0.057 | 6.0 |
| Tetrachloroethylene | | 127-18-4 | 0.056 | 6.0 |
| 2,3,4,6-Tetrachlorophenol | | 58-90-2 | 0.030 | 7.4 |
| Toluene | | 108-88-3 | 0.080 | 10 |
| Toxaphene | | 8001-35-2 | 0.0095 | 2.6 |
| Tribromomethane (Bromoform) | | 75-25-2 | 0.63 | 15 |
| 1,2,4-Trichlorobenzene | | 120-82-1 | 0.055 | 19 |
| 1,1,1-Trichloroethane | | 71-55-6 | 0.054 | 6.0 |
| 1,1,2-Trichloroethane | | 79-00-5 | 0.054 | 6.0 |
| Trichloroethylene | | 79-01-6 | 0.054 | 6.0 |
| Trichloromonofluoromethane | | 75-69-4 | 0.020 | 30 |
| 2,4,5-Trichlorophenol | | 95-95-4 | 0.18 | 7.4 |
| 2,4,6-Trichlorophenol | | 88-06-2 | 0.035 | 7.4 |
| 2,4,5-Trichlorophenoxyacetic acid/2,4,5-T | | 93-76-5 | 0.72 | 7.9 |
| 1,2,3-Trichloropropane | | 96-18-4 | 0.85 | 30 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | 76-13-1 | 0.057 | 30 |
| tris-(2,3-Dibromopropyl) phosphate | | 126-72-7 | 0.11 | 0.10 |
| Vinyl chloride | | 75-01-4 | 0.27 | 6.0 |
| Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations) | | 1330-20-7 | 0.32 | 30 |
| Antimony | | 7440-36-0 | 1.9 | 1.15 mg/ℓ TCLP |
| Arsenic | | 7440-38-2 | 1.4 | 5.0 mg/ℓ TCLP |
| Barium | | 7440-39-3 | 1.2 | 21 mg/ℓ TCLP |
| Beryllium | | 7440-41-7 | 0.82 | 1.22 mg/ℓ TCLP |
| Cadmium | | 7440-43-9 | 0.69 | 0.11 mg/ℓ TCLP |
| Chromium (Total) | | 7440-47-3 | 2.77 | 0.60 mg/ℓ TCLP |
| Cyanides (Total)4 | | 57-12-5 | 1.2 | 590 |
| Cyanides (Amenable)4 | | 57-12-5 | 0.86 | 30 |
| Fluoride5 | | 16984-48-8 | 35 | NA |
| Lead | | 7439-92-1 | 0.69 | 0.75 mg/ℓ TCLP |
| Mercury-Nonwastewater from Retort | | 7439-97-6 | NA | 0.20 mg/ℓ TCLP |
| Mercury-All Others | | 7439-97-6 | 0.15 | 0.025 mg/ℓ TCLP |
| Nickel | | 7440-02-0 | 3.98 | 11 mg/ℓ TCLP |
| Selenium7 | | 7782-49-2 | 0.82 | 5.7 mg/ℓ TCLP |
| Silver | | 7440-22-4 | 0.43 | 0.14 mg/ℓ TCLP |
| Sulfide | | 18496-25-8 | 14 | NA |
| Thallium | | 7440-28-0 | 1.4 | 0.20 mg/ℓ TCLP |
| Vanadium5 | | 7440-62-2 | 4.3 | 1.6 mg/ℓ TCLP |
| Zinc5 | | 7440-66-6 | 2.61 | 4.3 mg/ℓ TCLP |

1 CAS means Chemical Abstract Services. When the USEPA hazardous waste number or regulated constituents are described as a combination of a chemical with its salts or esters, the CAS number is given for the parent compound only.

2 Concentration standards for wastewaters are expressed in mg/ℓ are based on analysis of composite samples.

3 Except for metals (EP or TCLP) and cyanides (total and amenable), the nonwastewater treatment standards expressed as a concentration were established, in part, based on incineration in units operated in accordance with the technical requirements of Subpart O of 35 Ill. Adm. Code 724 or Subpart O of 35 Ill. Adm. Code 725 or on combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in Section 728.140(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

4 Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA publication number EPA-530/ SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a), with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

5 These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at Section 728.102(i).

6 This footnote corresponds with footnote 6 to the table to 40 CFR 268.48(a), which USEPA has removed and marked "reserved". This statement maintains structural consistency with the corresponding federal regulations.

7 This constituent is not an underlying hazardous constituent, as defined at Section 728.102(i), because its UTS level is greater than its TC level. Thus, a treated selenium waste would always be characteristically hazardous unless it is treated to below its characteristic level.

8 This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to USEPA hazardous waste numbers D004 through D011 only.

Note: NA means not applicable.

BOARD NOTE: Derived from table to 40 CFR 268.48(a) (2017).

(Source: Amended at 42 Ill. Reg. 24924, effective November 19, 2018)