**Section 611.600 Applicability**

Certain suppliers must monitor to determine compliance with the State-only MCLs in Section 611.300 and the revised MCLs in 611.301, as appropriate, as this Subpart N requires:

a) CWS suppliers.

b) NTNCWS suppliers.

c) Transient non-CWS suppliers to determine compliance with the nitrate and nitrite MCLs.

d) Detection Limits. Specific detection limits apply for this Subpart N (this list includes MCLs from Section 611.301 are for information purposes only):

|  |  |  |  |
| --- | --- | --- | --- |
| Contaminant | MCL (mg/L,except asbestos) | Method | Detection Limit (mg/L) |
|  |  |  |  |
| Antimony | 0.006 | Atomic absorption − furnace technique | 0.003 |
|  |  | Atomic absorption − furnace technique (stabilized temperature) | 0.00085 |
|  |  | Inductively coupled plasma-mass spectrometry | 0.0004 |
|  |  | Atomic absorption − gaseous hydride technique | 0.001 |
| Arsenic | 0.010 | Atomic absorption − furnace technique | 0.001 |
|  |  | Atomic absorption − furnace technique (stabilized temperature) | 0.000056 |
|  |  | Atomic absorption − gaseous hydride technique | 0.001 |
|  |  | Inductively coupled plasma-mass spectrometry | 0.00147 |
| Asbestos | 7 MFL1 | Transmission electron microscopy | 0.01MFL |
| Barium | 2 | Atomic absorption − furnace technique | 0.002 |
|  |  | Atomic absorption − direct aspiration technique | 0.1 |
|  |  | Inductively coupled plasma arc furnace | 0.002 |
|  |  | Inductively coupled plasma | 0.001 |
| Beryllium | 0.004 | Atomic absorption − furnace technique | 0.0002 |
|  |  | Atomic absorption − furnace technique (stabilized temperature) | 0.000025 |
|  |  | Inductively coupled plasma2 | 0.0003 |
|  |  | Inductively coupled plasma-mass spectrometry | 0.0003 |
| Cadmium | 0.005 | Atomic absorption − furnace technique | 0.0001 |
|  |  | Inductively coupled plasma | 0.001 |
| Chromium | 0.1 | Atomic absorption − furnace technique | 0.001 |
|  |  | Inductively coupled plasma | 0.007 |
|  |  | Inductively coupled plasma | 0.001 |
| Cyanide | 0.2 | Distillation, spectrophotometric3 | 0.02 |
|  |  | Automated distillation, spectrophotometric3 | 0.005 |
|  |  | Distillation, selective electrode3 | 0.05 |
|  |  | Distillation, amenable, spectrophotometric4  | 0.02 |
|  |  | UV, distillation, spectrophotometric8 | 0.0005 |
|  |  | Micro distillation, flow injection, spectrophotometric3 | 0.0006 |
|  |  | Ligand exchange withamperometry4 | 0.0005 |
| Mercury | 0.002 | Manual cold vapor technique | 0.0002 |
|  |  | Automated cold vapor technique | 0.0002 |
| Nickel | No MCL | Atomic absorption − furnace technique | 0.001 |
|  |  | Atomic absorption − furnace technique (stabilized temperature) | 0.00065 |
|  |  | Inductively coupled plasma2 | 0.005 |
|  |  | Inductively coupled plasma-mass spectrometry | 0.0005 |
| Nitrate (as N) | 10 | Manual cadmium reduction | 0.01 |
|  |  | Automated hydrazine reduction | 0.01 |
|  |  | Automated cadmium reduction | 0.05 |
|  |  | Ion-selective electrode | 1 |
|  |  | Ion chromatography | 0.01 |
|  |  | Capillary ionelectrophoresis | 0.076 |
| Nitrite (as N) | 1 | Spectrophotometric | 0.01 |
|  |  | Automated cadmium reduction | 0.05 |
|  |  | Manual cadmium reduction | 0.01 |
|  |  | Ion chromatography | 0.004 |
|  |  | Capillary ionelectrophoresis | 0.103 |
| Selenium | 0.05 | Atomic absorption − furnace technique | 0.002 |
|  |  | Atomic absorption − gaseous hydride technique | 0.002 |
| Thallium | 0.002 | Atomic absorption − furnace technique | 0.001 |
|  |  | Atomic absorption − furnace technique (stabilized temperature) | 0.00075 |
|  |  | Inductively coupled plasma-mass spectrometry | 0.0003 |
| Footnotes. |  |  |  |
| 1 | "MFL" means millions of fibers per liter less than 10 μm. |
| 2 | Using a 2x preconcentration step as noted in USEPA 200.7 (94). Lower MDLs are possible when using a 4x preconcentration. |
| 3 | Screening method for total cyanides. |
| 4 | Measures "free" cyanides when omitting distillation, digestion, or ligand exchange. |
| 5 | Lower MDLs are possible using stabilized temperature graphite furnace atomic absorption. |
| 6 | The MDL for USEPA 200.9 (94) (atomic absorption-platform furnace (stabilized temperature)) resulted using a 2x concentration step during sample digestion. The MDL using direct analyses (i.e., no sample digestion) is higher. Using multiple depositions, USEPA 200.9 (94) can obtain an MDL of 0.0001 mg/L. |
| 7 | Using selective ion monitoring, USEPA 200.8 (94) (ICP-MS) is capable of obtaining an MDL of 0.0001 mg/L. |
| 8 | Measures total cyanides when using UV-digestor and "free" cyanides when bypassing UV-digestor. |

BOARD NOTE: Subsections (a) through (c) derive from 40 CFR 141.23 preamble, and subsection (d) derives from 40 CFR 141.23 (a)(4)(i) and appendix A to subpart C of 40 CFR 141. See the Board Note at Section 611.301(b) relating to the MCL for nickel.

(Source: Amended at 47 Ill. Reg. 16486, effective November 2, 2023)