



**HUMAN TOXICOLOGY and AIR STANDARDS SECTION  
TECHNICAL ASSESSMENT and STANDARDS DEVELOPMENT BRANCH  
ONTARIO MINISTRY of the ENVIRONMENT, CONSERVATION and PARKS**

## **AMBIENT AIR QUALITY CRITERIA**

**May 1, 2020**

## Ambient Air Quality Criteria

ISBN: 978-1-4868-4498-2

[Copyright information: © Queen's Printer for Ontario](#)

For additional technical information regarding the AAQCs and contaminants included please contact:

Human Toxicology and Air Standards Section  
Technical Assessment and Standards Development Branch  
Ontario Ministry of the Environment, Conservation and Parks  
Email: GLCCoordinator@ontario.ca

The AAQC List is also available online at <https://www.ontario.ca/page/ontarios-ambient-air-quality-criteria-sorted-contaminant-name>. The AAQC List as well as this PDF document are available in English only.

Bien que ce document soit disponible seulement en anglais, il y a un résumé en français des *Critères de qualité de l'air ambiant – classé selon le nom du contaminant* que peut être consulté sur le site Web: <https://www.ontario.ca/fr/page/criteres-de-qualite-de-lair-ambiant-classe-selon-le-nom-du-contaminant>.

### Suggested citation:

Human Toxicology and Air Standards Section, Technical Assessment and Standards Development Branch, Ontario Ministry of the Environment, Conservation and Parks (MECP). 2020. Ambient Air Quality Criteria. MECP, Toronto, ON, Canada.

This document provides the most up-to-date list of the Ambient Air Quality Criteria (AAQC) set by the Ontario Ministry of the Environment, Conservation and Parks, and a brief description of the process used by the Ministry to develop the AAQCs.

An AAQC is not a regulatory value. It is a concentration of a contaminant in air that is protective against adverse effects on health and/or the environment. AAQCs are used to assess general (ambient) air quality resulting from all sources of a contaminant to air. AAQCs are most commonly used in environmental assessments, special studies using ambient air monitoring data, assessment of general air quality in a community and annual reporting on air quality across the province.

Since AAQCs are based on a review of scientific information about the effects of contaminants on health and the environment, they may be modified from time to time based on new or relevant scientific information.

### **AAQCs are based on effects**

AAQCs are based on the most sensitive effect identified through a review carried out at the time of AAQC development. Most AAQCs are based on health effects.

The health effects considered during the process of developing an AAQC may be acute (for example, pulmonary irritation) or chronic (for example, a life-time increased risk of cancer) and this, in turn, affects the averaging time assigned to the AAQC. Averaging times for AAQCs intended to protect against acute effects are generally less than 24 hours (for example 1 hour), whereas averaging times for AAQCs protective against chronic effects are generally 24 hours or longer (for example, 30 days, annual).

The list of AAQCs provided in the document has also incorporated the Canadian Ambient Air Quality Standards (CAAQS) for the fine fraction of particulate matter, i.e. atmospheric particulate matter in the absence of an AAQC. Fine particle matter, PM<sub>2.5</sub>, includes small particles measured in air with a mean aerodynamic diameter equal to or less than 2.5 microns. CAAQS are developed through the Canadian Council of Ministers of the Environment as part of an established Air Quality Management System (AQMS). AQMS is a collaborative framework for improving air quality across Canada, and CAAQS are set nationally for public reporting and air quality management. For more details, the 2012 “Guidance Document on Achievement Determination: Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone” by the Canadian Council of Ministers of the Environment, should be consulted.

### **Contaminants with more than one AAQC**

For some contaminants, more than one AAQC may be set either because more than one effect is identified for the contaminant, or the AAQC based on a specific effect and averaging time may be converted to a different value based on a different averaging time. These scenarios are briefly described below:

1) If more than one effect is identified for a contaminant, then more than one AAQC is set and all of them are to be used for assessment purposes.

Example: Chlorine has a 24-hr AAQC based on health effects associated with long-term exposures (respiratory epithelial damage), and a 10-minute AAQC based on the level at which people may detect the odour in short-term exposures.

2) For some contaminants, a second AAQC may be set based on the conversion of the original value to reflect a different averaging time. For converting the AAQC from one averaging time to another, the Ministry uses the methods and rules described in the Ontario Regulation 419/05, section 17.

Converted AAQCs may be used to address implementation issues (associated with monitoring and/or modelling of contaminants) and are most often applied to allow assessment of data collected over shorter time periods. In these cases, if the converted AAQC is exceeded, then additional assessment may be warranted to understand potential health or environmental effects.

### **Organization of the AAQC List**

The AAQC List (Table 1) consists of seven columns containing the following information:

**Column 1 (No.):** contaminant counter;

**Column 2 (CASRN):** Chemical Abstracts Service Registry Number for each contaminant;

**Column 3 (Contaminant):** the name of the contaminant listed in alphabetical order;

**Column 4 [AAQC ( $\mu\text{g}/\text{m}^3$ ):** the AAQC concentration value typically expressed in micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ), unless other units such as parts per billion (ppb) or parts per million (ppm) are specified. For those concentrations expressed as both ppb/ppm and  $\mu\text{g}/\text{m}^3$ , the following conditions were applied: 10°C and a pressure of 101.3 kilopascals. For sulphur dioxide, only the ppb value is shown in the table for the AAQCs for implementation purposes. For some metals, AAQCs for particulate matter of different size fractions are provided in the list. For example, for manganese and manganese compounds (CAS # 7439-96-5), there is one AAQC for the metal in ambient  $\text{PM}_{2.5}$ , another in  $\text{PM}_{10}$  (the fraction of particles with an aerodynamic diameter smaller than 10  $\mu\text{m}$ ), and a third one in suspended particulate matter (SPM). The metal concentration in the lowest particulate size fraction is considered as the most relevant from a toxicological perspective. The AAQCs for the larger particulate fractions may be used to address implementation issues associated with monitoring and/or modelling of contaminants.

**Column 5 (Averaging Time):** averaging time period;

**Column 6 (Basis):** basis of the AAQC, which may be one of the following:

*Corrosion:* Deterioration of a surface resulting from a chemical reaction involving the air contaminant.

*Effects on animals:* Toxicity to foraging animals.

*Health:* Adverse health effects that could occur from short-term or long-term exposure to the contaminant in air.

*Odour:* Geometric mean of odour detection thresholds available for the contaminant. Odour-based AAQCs with averaging times other than 10 minutes are to be updated to align with the current ministry approach for setting odour-based criteria.

*Particulate or Visibility:* AAQCs with this designation are based on the assumption that the contaminant is more likely emitted as SPM, and therefore the AAQC for SPM is applied. Particulates influence visibility in air.

*Soiling:* Effects on aesthetics from the deposition of the contaminant

*Vegetation:* Toxicity due to deposition on or uptake of the contaminant by plants.

**Column 7 (Notes):** Notes with additional information, for example whether the AAQC is a converted value and how to apply the AAQC.

### List of Ambient Air Quality Criteria (AAQCs)

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
1	75-07-0	Acetaldehyde	500	24-Hour	Health	
1	75-07-0	Acetaldehyde	500	½-Hour	Health	
2	64-19-7	Acetic acid	2,500	24-Hour	Odour	To be updated
3	67-64-1	Acetone	11,880	24-Hour	Health	
4	75-05-8	Acetonitrile	70	24-Hour	Health	
5	98-86-2	Acetophenone	1,167	1-Hour	Health	
5	98-86-2	Acetophenone	850	10-Minute	Odour	
6	74-86-2	Acetylene	56,000	24-Hour	Odour	To be updated
7	107-02-8	Acrolein	0.4	24-Hour	Health	
7	107-02-8	Acrolein	4.5	1-Hour	Health	
8	79-06-1	Acrylamide	15	24-Hour	Health	
9	107-13-1	Acrylonitrile	0.12	Annual	Health	
9	107-13-1	Acrylonitrile	0.6	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
10	124-04-9	Adipic acid	1,167	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
11	N/A	Alkyltoluene sulphonamide, N-	120	24-Hour	Particulate	
12	106-92-3	Allyl glycidyl ether	60	24-Hour	Health	
13	300-92-5	Aluminum distearate	2,180	24-Hour	Health	
14	1344-28-1	Aluminum oxide	120	24-Hour	Particulate	
15	7047-84-9	Aluminum stearate	2,180	24_Hour	Health	
16	637-12-7	Aluminum tristearate	2,180	24-Hour	Health	
17	7664-41-7	Ammonia	100	24-Hour	Health	
18	12125-02-9	Ammonium chloride	120	24-Hour	Particulate	
19	123-92-2	Amyl acetate, iso-	53,200	24-Hour	Health & Odour	
20	628-63-7	Amyl acetate, n-	53,200	24-Hour	Health & Odour	
21	626-38-0	Amyl acetate, secondary	66,500	24-Hour	Health & Odour	
22	7440-36-0	Antimony	25	24-Hour	Health	
23	7440-38-2	Arsenic and compounds	0.3	24-Hour	Health	
24	7784-42-1	Arsine	5	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
24	7784-42-1	Arsine	10	½-Hour	Health	
25	1332-21-4	Asbestos (fibres > 5 $\mu\text{m}$ in length)	0.04 fibres/ $\text{cm}^3$	24-Hour	Health	
26	7440-39-3	Barium - total water soluble	10	24-Hour	Health	
27	71-43-2	Benzene	0.45	Annual	Health	
27	71-43-2	Benzene	2.3	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
28	50-32-8	Benzo(a)pyrene [as a surrogate of total Polycyclic Aromatic Hydrocarbons (PAHs)]	0.00001	Annual	Health	B[a]P is used as a surrogate for the total carcinogenicity of PAHs  This AAQC does not apply to naphthalene (CASRN 91-20-3) nor for any other PAH for which an AAQC may be derived separately
28	50-32-8	Benzo(a)pyrene [as a surrogate of total Polycyclic Aromatic Hydrocarbons (PAHs)]	0.00005	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
29	65-85-0	Benzoic acid	700	24-Hour	Health	
30	95-16-9	Benzothiazole	70	24-Hour	Health	



No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
31	98-88-4	Benzoyl chloride	125	24-Hour	Corrosion & Health	
32	100-51-6	Benzyl alcohol	880	24-Hour	Health	
33	7440-41-7	Beryllium and beryllium compounds	0.01	24-Hour	Health	
34	92-52-4	Biphenyl	60	1-Hour	Odour	To be updated
35	1303-96-4	Borax	33	24-Hour	Health	
36	10043-35-3	Boric acid	33	24-Hour	Health	
37	7440-42-8	Boron	120	24-Hour	Particulate	
38	10294-33-4	Boron tribromide	35	24-Hour	Corrosion	
39	10294-34-5	Boron trichloride	35	24-Hour	Corrosion	
40	7637-07-2	Boron trifluoride	2	24-Hour	Vegetation	
41	314-40-9	Bromacil	10	24-Hour	Health	
42	7726-95-6	Bromine	20	24-Hour	Health	
43	75-25-2	Bromoform	55	24-Hour	Health	
44	106-99-0	Butadiene, 1,3-	2	Annual	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
44	106-99-0	Butadiene, 1,3-	10	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
45	71-36-3	Butanol, n-	920	24-Hour	Health	
45	71-36-3	Butanol, n-	2,100	10-Minute	Odour	
46	75-65-0	Butanol, tertiary	30,300	24-Hour	Health	
47	5131-66-8	Butoxy-2-propanol, 1-	3,300	24-Hour	Health	
48	123-86-4	Butyl acetate, n-	15,000	1-Hour	Health	
48	123-86-4	Butyl acetate, n-	1,000	10-Minute	Odour	
49	141-32-2	Butyl acrylate	120	24-Hour	Particulate	
50	3622-84-2	Butyl benzene sulphonamide, N-	35	24-Hour	Health	
51	85-68-7	Butyl benzene phthalate	150	24-Hour	Health	
52	123-95-5	Butyl stearate	120	24-Hour	Particulate	
53	7440-43-9	Cadmium and cadmium compounds	0.005	Annual	Health	
53	7440-43-9	Cadmium and cadmium compounds	0.025	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
54	75-20-7	Calcium carbide	10	24-Hour	Corrosion	
55	592-01-8	Calcium cyanide (as total salt)	120	24-Hour	Particulate	
56	1305-62-0	Calcium hydroxide	13.5	24-Hour	Corrosion	
57	1305-78-8	Calcium oxide	10	24-Hour	Corrosion	
58	1592-23-0	Calcium stearate	35	24-Hour	Health	
59	133-06-2	Captan	25	24-Hour	Health	
60	1333-86-4	Carbon black	10	24-Hour	Soiling	
61	75-15-0	Carbon disulphide	330	24-Hour	Odour	To be updated
62	630-08-0	Carbon monoxide	15,700 (13 ppm)	8-Hour	Health	
62	630-08-0	Carbon monoxide	36,200 (30 ppm)	1-Hour	Health	
63	56-23-5	Carbon tetrachloride	2.4	24-Hour	Health	
64	133-90-4	Chloramben	120	24-Hour	Particulate	
65	57-74-9	Chlordane	5	24-Hour	Health	
66	7782-50-5	Chlorine	10	24-Hour	Health	
66	7782-50-5	Chlorine	230	10-Minute	Odour	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
67	10049-04-4	Chlorine dioxide	2	24-Hour	Health	
68	75-45-6	Chlorodifluoromethane (Freon 22)	350,000	24-Hour	Health	See O. Reg. 463/10 for Ozone Depleting Substances and Other Halocarbons for further restrictions on these, and several other ozone-depleting substances
69	75-00-3	Chloroethane	5,600	24-Hour	Health	
70	67-66-3	Chloroform	0.2	Annual	Health	
70	67-66-3	Chloroform	1	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
71	18540-29-9	Chromium compounds (hexavalent forms; CrVI)	0.00007 (as $\text{PM}_{10}$ ); 0.00014 (as SPM)	Annual	Health	Applies to either CrVI forms only, or to the percentage of CrVI species relative to total chromium
71	18540-29-9	Chromium compounds (hexavalent forms; CrVI)	0.00035 (as $\text{PM}_{10}$ ); 0.0007 (as SPM)	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
72	7440-47-3	Chromium compounds (metallic, divalent and trivalent forms)	0.5	24-Hour	Health	Applies to either chromium metallic (CASRN 7440-47-3), divalent (CASRN 22541-79-3), and trivalent (CASRN 16065-83- 1), or to the percentage of Cr metallic, divalent and trivalent relative to total chromium
73	77-92-9	Citric acid	120	24-Hour	Particulate	
73	77-92-9	Citric acid	300	1-Hour	Health	
74	8007-45-2	Coal tar pitch volatiles - soluble fraction	0.2	Annual	Health	
74	8007-45-2	Coal tar pitch volatiles - soluble fraction	1	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
75	7440-48-4	Cobalt	0.1	24-Hour	Health	
76	7440-50-8	Copper	50	24-Hour	Health	
77	1319-77-3	Cresols	75	24-Hour	Health	Applies to the following isomers, individually or as a mixture: o- cresol (CASRN 95-48-7), p- cresol (CASRN 106-44-5), and m-cresol (CASRN 108-39-4)
78	506-77-4	Cyanogen chloride	12	24-Hour	Health	
79	110-82-7	Cyclohexane	6,100	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
80	127-20-8	Dalapon sodium salt	50	24-Hour	Health	
81	17702-41-9	Decaborane	25	24-Hour	Health	
82	124-18-5	Decane, n-	60,000	1-Hour	Health & Odour	
83	872-05-9	Decene, 1-	60,000	24-Hour	Health	
84	1395-21-7	Detergent enzyme (Subtilisin)	0.06	24-Hour	Health	
85	123-42-2	Diacetone alcohol	1,350	10-Minute	Odour	
86	333-41-5	Diazinon	3	24-Hour	Health	
87	19287-45-7	Diborane	10	24-Hour	Health	
88	111-92-2	Dibutyl amine	2,645	1-Hour	Health	
89	84-74-2	Dibutyl phthalate (DBP, di-n- butyl phthalate)	50	24-Hour	Health	
90	77-58-7	Dibutyltin dilaurate	30	24-Hour	Health	
91	131-15-7	Dicapryl phthalate	120	24-Hour	Particulate	
92	95-50-1	Dichlorobenzene, 1,2-	30,500	1-Hour	Health	
93	106-46-7	Dichlorobenzene, 1,4-	95	24-Hour	Health	
94	75-34-3	Dichloroethane, 1,1-	165	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
95	156-59-2	Dichloroethylene, cis-1,2-	105	24-Hour	Health	
96	540-59-0	Dichloroethylene, sym-1,2-	105	24-Hour	Health	
97	156-60-5	Dichloroethylene, trans-1,2-	105	24-Hour	Health	
98	76-14-2	Dichloro-1,1,2,2-tetrafluoroethane, 1,2- (Freon 114)	700,000	24-Hour	Health	See O. Reg. 463/10 for Ozone Depleting Substances and Other Halocarbons for further restrictions on these, and several other ozone-depleting substances
99	109-89-7	Diethyl amine	2,910	1-Hour	Health	
100	112-34-5	Diethylene glycol monobutyl ether	65	24-Hour	Health	
101	124-17-4	Diethylene glycol monobutyl ether acetate	85	24-Hour	Health	
102	111-90-0	Diethylene glycol monoethyl ether	1,100	10-Minute	Odour	
103	112-15-2	Diethylene glycol monoethyl ether acetate	1,800	24-Hour	Health	
104	111-77-3	Diethylene glycol monomethyl ether	1,200	24-Hour	Health	
105	117-81-7	Di(2-ethylhexyl) phthalate	50	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
106	84-66-2	Diethyl phthalate (DEP)	125	24-Hour	Health	
107	75-71-8	Difluorodichloromethane (Freon 12)	500,000	24-Hour	Health	See O. Reg. 463/10 for Ozone Depleting Substances and Other Halocarbons for further restrictions on these, and several other ozone-depleting substances
108	84-75-3	Dihexyl phthalate (DHP)	50	24-Hour	Health	
109	108-83-8	Diisobutyl ketone	3,500	24-Hour	Health	
109	108-83-8	Diisobutyl ketone	649	10-Minute	Odour	
110	127-19-5	Dimethyl acetamide, N,N-	300	24-Hour	Health	
111	124-40-3	Dimethyl amine	1,840	1-Hour	Health & Odour	
112	109-55-7	Dimethyl-1,3-diamino propane, N,N-	20	24-Hour	Health	
113	624-92-0	Dimethyl disulphide	56	10-Minute	Odour	
114	115-10-6	Dimethyl ether	2,100	24-Hour	Odour	To be updated
115	756-79-6	Dimethyl methylphosphonate	875	24-Hour	Health	
116	131-11-3	Dimethyl phthalate (DMP)	125	24-Hour	Health	



No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
117	67-68-5	Dimethyl sulfoxide	2,100	24-Hour	Health	
118	75-18-3	Dimethyl sulphide	30	10-Minute	Odour	
119	117-84-0	Di-n-octyl phthalate	120	24-Hour	Health & Particulate	
120	123-91-1	Dioxane	3,500	24-Hour	Health	
121	N/A	Dioxins, furans and dioxin-like PCBs	0.1 pg TEQ/ $\text{m}^3$	24-Hour	Health	See the Appendix for applicable contaminants and calculation of total concentration of dioxins, furans and dioxin-like PCBs.
122	646-06-0	Dioxolane-1,3	10	24-Hour	Health	
123	122-39-4	Diphenylamine	17.5	24-Hour	Health	
124	85-00-7	Diquat dibromide – respirable	0.032	24-Hour	Health	
124	85-00-7	Diquat dibromide - total	0.16	24-Hour	Health	
125	1886-81-3	Dodecyl benzene sulphonic acid	120	24-Hour	Particulate	
126	2439-10-3	Dodine	10	24-Hour	Health	
127	548-73-2	Droperidol	1	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
128	N/A	Dustfall	4.6 $\text{g}/\text{m}^2$	Annual	Soiling	Value is the arithmetic mean of 30-day collection periods over an annual averaging time
128	N/A	Dustfall	7 $\text{g}/\text{m}^2$	30-Day	Soiling	Value is compared against any 30-day collection period
129	64-17-5	Ethanol (Ethyl alcohol)	19,000	1-Hour	Odour	To be updated
130	141-78-6	Ethyl acetate	19,000	1-Hour	Odour	To be updated
131	140-88-5	Ethyl acrylate	4.5	1-Hour	Odour	To be updated
132	84-51-5	Ethylanthraquinone, 2-	10	24-Hour	Health	
133	100-41-4	Ethyl benzene	1,000	24-Hour	Health	
133	100-41-4	Ethyl benzene	1,900	10-Minute	Odour	
134	74-85-1	Ethylene	40	24-Hour	Vegetation	
135	106-93-4	Ethylene dibromide	3	24-Hour	Health	
136	107-06-2	Ethylene dichloride	0.4	Annual	Health	
136	107-06-2	Ethylene dichloride	2	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
137	107-21-1	Ethylene glycol	12,700	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
138	111-76-2	Ethylene glycol butyl ether (Butyl cellosolve)	2,400	24-Hour	Health	
138	111-76-2	Ethylene glycol butyl ether (Butyl cellosolve)	500	10-Minute	Odour	
138	112-07-2	Ethylene glycol butyl ether acetate (Butyl cellosolve acetate)	3,250	24-Hour	Health	
138	112-07-2	Ethylene glycol butyl ether acetate (Butyl cellosolve acetate)	700	10-Minute	Odour	
139	628-96-6	Ethylene glycol dinitrate	3	24-Hour	Health	
140	110-80-5	Ethylene glycol ethyl ether (Cellosolve)	380	24-Hour	Health	
140	110-80-5	Ethylene glycol ethyl ether (Cellosolve)	1,100	10-Minute	Odour	
141	111-15-9	Ethylene glycol ethyl ether acetate (Cellosolve acetate )	540	24-Hour	Health	
141	111-15-9	Ethylene glycol ethyl ether acetate (Cellosolve acetate )	300	10-Minute	Odour	
142	112-25-4	Ethylene glycol monohexyl ether	2,500	24-Hour	Health	
143	75-21-8	Ethylene oxide	0.04	Annual	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
143	75-21-8	Ethylene oxide	0.2	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
144	60-00-4	Ethylenediaminetetra acetic acid	120	24-Hour	Particulate	
145	60-29-7	Ethyl ether	8,000	24-Hour	Health	
145	60-29-7	Ethyl ether	950	10-Minute	Odour	
146	763-69-9	Ethyl-3-ethoxy propionate	200	10-Minute	Odour	
147	104-76-7	Ethyl hexanol, 2-	600	1-Hour	Odour	To be updated
148	990-73-8	Fentanyl citrate	0.02	24-Hour	Health	
149	1309-37-1	Ferric oxide	25	24-Hour	Soiling	
150	7664-39-3	Fluoridation – Total fluorides (Growing season)	40 $\mu\text{g}/100$ $\text{cm}^2$	30-Day	Vegetation	The growing season is from May 1 to September 30 in Northern Ontario (Northern Region), and from April 1 to October 31 in Southern Ontario (South West, West Central, East & Central Regions)

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
150	7664-39-3	Fluoridation – Total fluorides (Non-growing Season)	80 $\mu\text{g}/100$ $\text{cm}^2$	30-Day	Vegetation	The non-growing season which is from October 1 to April 30 in Northern Ontario (Northern Region), and from November 1 to March 31 in Southern Ontario (South West, West Central, East & Central Regions)
150	7664-39-3	Fluorides (as HF) – Gaseous (growing season)	0.34 (0.4 ppb)	30-Day	Vegetation	See Fluoridation note above on growing season
150	7664-39-3	Fluorides (as HF) – Gaseous (growing season)	0.86 (1 ppb)	24-Hour	Health	Converted from the 30-day AAQC for Fluorides (as HF) – Gaseous (growing season) to allow assessment of 24-hour air quality data
150	7664-39-3	Fluorides (as HF) – Total (growing season)	0.69 (0.8 ppb)	30-Day	Vegetation	See Fluoridation note above on growing season
150	7664-39-3	Fluorides (as HF) – Total (growing season)	1.72 (2 ppb)	24-Hour	Vegetation	Converted from the 30-day AAQC for Fluorides (as HF) – Total (growing season) to allow assessment of 24-hour air quality data
150	7664-39-3	Fluorides (as HF) – Total (non-growing season)	1.38 (1.6 ppb)	30-Day	Vegetation	See Fluoridation note above on non-growing season

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
150	7664-39-3	Fluorides (as HF) – Total (non-growing season)	3.44 (4 ppb)	24-Hour	Vegetation	Converted from the 30-day AAQC for Fluorides (as HF) – Total (non-growing season) to allow assessment of 24-hour air quality data
150	7664-39-3	Fluorides in dry forage – Dry weight	60 ppm	60-Day	Effects on animals	Average of 2 consecutive months
150	7664-39-3	Fluorides in dry forage – Dry weight	35 ppm	30-Day	Effects on animals	Average over a growing season
150	7664-39-3	Fluorides in dry forage – Dry weight	80 ppm	30-Day	Effects on animals	Average results for any single month
151	N/A	Fluorinert 3M-FC-70	120	24-Hour	Particulate	
152	50-00-0	Formaldehyde	65	24-Hour	Health	
153	64-18-6	Formic acid	500	24-Hour	Health	
154	98-01-1	Furfural	1,000	1-Hour	Odour	To be updated
155	98-00-0	Furfuryl alcohol	1,000	24-Hour	Health	
156	111-30-8	Glutaraldehyde	14	24-Hour	Health	
156	111-30-8	Glutaraldehyde	35	1-Hour	Health	Converted from the 24-hour AAQC to allow assessment of 1-hour air quality data
157	52-86-8	Haloperidol	0.1	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
158	142-82-5	Heptane, n-	11,000	24-Hour	Health	
159	77-47-4	Hexachlorocyclopentadiene	2	24-Hour	Health	
160	999-97-3	Hexamethyl disilazane	2	24-Hour	Health	
161	4035-89-6	HDI Biuret (HDI-BT)	3	24-Hour	Health	
162	3779-63-3	HDI Isocyanurate (HDI-IC)	3	24-Hour	Health	
163	822-06-0	Hexamethylene diisocyanate (HDI) monomer	0.03	24-Hour	Health	
164	28182-81-2	HDI Polyisocyanate (HDI-BT and HDI-IC)	3	24-Hour	Health	
165	124-09-4	Hexamethylenediamine	16	24-Hour	Health	
166	111-49-9	Hexamethyleneimine	315	24-Hour	Health	
167	110-54-3	Hexane, n- (n-Hexane and hexane isomers only)	7,500	24-Hour	Health	
167	110-54-3	Hexane, n- (part of a mixture)	2,500	24-Hour	Health	
168	107-41-5	Hexylene glycol	12,000	1-Hour	Health	
169	10035-10-6	Hydrogen bromide	668	1-Hour	Health	
170	7647-01-0	Hydrogen chloride	20	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
171	74-90-8	Hydrogen cyanide	8	24-Hour	Health	
172	7722-84-1	Hydrogen peroxide	30	24-Hour	Health	
173	7783-06-5	Hydrogen sulphide	7	24-Hour	Health	
173	7783-06-5	Hydrogen sulphide	13	10-Minute	Odour	
174	7439-89-6	Iron (metallic)	4	24-Hour	Health	
175	78-83-1	Isobutanol	4,600	24-Hour	Health	
175	78-83-1	Isobutanol	2,340	10-Minute	Odour	
176	110-19-0	Isobutyl acetate	1,660	10-Minute	Odour	
177	67-63-0	Isopropanol (Isopropyl alcohol)	7,300	24-Hour	Health	
178	108-21-4	Isopropyl acetate	2,000	10-Minute	Odour	
179	98-82-8	Isopropyl benzene	400	24-Hour	Health	
180	108-20-3	Isopropyl ether	110,000	24-Hour	Health	
181	7439-92-1	Lead and lead compounds	0.2	30-Day	Health	As arithmetic mean of a 30-day period
181	7439-92-1	Lead and lead compounds	0.5	24-Hour	Health	Converted from the 30-day AAQC to allow assessment of 24-hour air quality data



No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
182	58-89-9	Lindane (Hexachlorocyclohexane)	5	24-Hour	Health	
183	7439-93-2	Lithium (other than hydrides)	20	24-Hour	Health	
184	7580-67-8	Lithium hydrides	2.5	24-Hour	Health	
185	1309-48-4	Magnesium oxide	120	24-Hour	Particulate	
186	557-04-0	Magnesium stearate	35	24-Hour	Health	
187	121-75-5	Malathion	120	24-Hour	Particulate	
188	108-31-6	Maleic anhydride	30	24-Hour	Health	
189	7439-96-5	Manganese and manganese compounds	0.1 (as $\text{PM}_{2.5}$ ); 0.2 (as $\text{PM}_{10}$ ); 0.4 (as SPM)	24-Hour	Health	Does not apply to MMT (CASRN 12108-13-3)

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
190	N/A	Mercaptans	13	10-Minute	Odour	<p>Mercaptan means any organic compound that contains a thiol group; mercaptans are expressed as methyl mercaptan and are calculated as follow:</p> <p><math>A = \Sigma ((B \times 48) \div C)</math>, where:</p> <p>A = the amount (or concentration) of total mercaptans, expressed as methyl mercaptan</p> <p>B = the amount (or concentration) of each mercaptan, and</p> <p>C = the molecular weight of each mercaptan</p>
191	120-78-5	Mercaptobenzothiazole disulphide	120	24-Hour	Particulate	
192	7439-97-6	Mercury (Hg)	2	24-Hour	Health	
192	7439-97-6	Mercury (as Hg) – alkyl compounds	0.5	24-Hour	Health	
193	108-62-3	Metlaldehyde (Acetaldehyde tetramer)	120	24-Hour	Particulate	
194	79-41-4	Methacrylic acid	2,000	24-Hour	Odour	To be updated

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
195	101-68-8	Methane diphenyl diisocyanate (MDI monomer)	0.7	24-Hour	Health	
196	67-56-1	Methanol (Methyl alcohol)	4,000	24-Hour	Health	
197	70657-70-4	Methoxy-1-propyl acetate, 2-	1,530	24-Hour	Health	
198	72-43-5	Methoxychlor	120	24-Hour	Particulate	
199	96-33-3	Methyl acrylate	4	1-Hour	Odour	To be updated
200	109-87-5	Methylal	6,200	24-Hour	Health	
201	74-83-9	Methyl bromide	1,350	24-Hour	Health	
202	74-87-3	Methyl chloride	320	24-Hour	Health	
203	71-55-6	Methyl chloroform (1,1,1-Trichloroethane)	115,000	24-Hour	Health	
204	12108-13-3	Methylcyclopentadienyl manganese tricarbonyl (MMT)	10	24-Hour	Health	
205	101-14-4	Methylene-bis-2-chloroaniline, 4,4-	10	24-Hour	Health	
206	75-09-2	Methylene chloride	44	Annual	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
206	75-09-2	Methylene chloride	220	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
207	101-77-9	Methylene dianiline	10	24-Hour	Health	
208	75-11-6	Methylene iodide	65	24-Hour	Health	
209	78-93-3	Methyl ethyl ketone (2-Butanone)	1,000	24-Hour	Health	
210	1338-23-4	Methyl ethyl ketone peroxide	200	1-Hour	Health	
210	1338-23-4	Methyl ethyl ketone peroxide	80	24-Hour	Health	
211	110-12-3	Methyl-2-hexanone, 5-	630	10-Minute	Odour	
212	624-83-9	Methyl isocyanate	1	24-Hour	Health	
213	108-10-1	Methyl isobutyl ketone	1,200	24-Hour	Odour	To be updated
214	80-62-6	Methyl methacrylate	860	24-Hour	Odour	To be updated
215	872-50-4	Methyl-2-pyrrolidone, N-	40,000	1-Hour	Health	
216	119-36-8	Methyl salicylate	100	24-Hour	Health	
217	98-83-9	Methyl styrene, alpha	24,000	1-Hour	Health	
218	1634-04-4	Methyl tert-butyl ether	7,000	24-Hour	Health	
219	110-43-0	Methyl-n-amyl ketone	4,600	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
220	22832-87-7	Miconazole nitrate	5	24-Hour	Health	
221	N/A	Mineral spirits	2,600	24-Hour	Health	“Mineral spirits” is defined as a petroleum distillate mixture of C <sub>7</sub> to C <sub>12</sub> alkanes (paraffins) and cycloalkanes (naphthenes) where the mixture is in the range from 5 to 20 % aromatics by weight, is less than 0.1 % benzene by weight, has a boiling point in the range from 130 to 220 °C and has a flash point in the range from 21 to 60 °C
222	7439-98-7	Molybdenum	120	24-Hour	Particulate	
223	108-90-7	Monochlorobenzene	3,500	1-Hour	Health	
223	108-90-7	Monochlorobenzene	4,500	10-Minute	Odour	
224	74-89-5	Monomethyl amine	25	24-Hour	Odour	To be updated
225	91-20-3	Naphthalene	22.5	24-Hour	Health	
225	91-20-3	Naphthalene	50	10-Minute	Odour	
226	90-15-3	Naphthol, alpha-	100	24-Hour	Health	
227	7440-02-0	Nickel and nickel compounds	0.02 (as PM <sub>10</sub> ); 0.04 (as SPM)	Annual	Health	Does not apply to nickel carbonyl (CASRN 13463-39-3)

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
227	7440-02-0	Nickel and nickel compounds	0.1 (as $\text{PM}_{10}$ ); 0.2 (as SPM)	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
228	13463-39-3	Nickel carbonyl	0.5	24-Hour	Health	
229	7697-37-2	Nitric acid	35	24-Hour	Corrosion	
230	139-13-9	Nitrilotriacetic acid	120	24-Hour	Particulate	
231	10102-44-0	Nitrogen dioxide	200 (0.10 ppm)	24-Hour	Health	For monitored ambient air levels For modelled data, estimates of total nitrogen oxides ( $\text{NO}_x$ ) should be compared to this AAQC unless sufficient information is available to reliably estimate maximum $\text{NO}_2$ concentrations
231	10102-44-0	Nitrogen dioxide	400 (0.20 ppm)	1-Hour	Health	See note above
232	55-63-0	Nitroglycerin	3	24-Hour	Health	
233	10024-97-2	Nitrous oxide	9,000	24-Hour	Health	
234	111-65-9	Octane	61,800	10-minute	Odour	
235	111-66-0	Octene, 1-	50,000	24-Hour	Health	
236	112-80-1	Oleic acid	5	1-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
237	144-62-7	Oxalic acid	25	24-Hour	Health	
238	90438-79-2	Oxo-heptyl acetate	85	24-Hour	Health	
239	88230-35-7	Oxo-hexyl acetate	85	24-Hour	Health	
240	10028-15-6	Ozone	165 (0.080 ppm)	1-Hour	Health	
241	7647-10-1	Palladium - water soluble compounds	10	24-Hour	Health	
242	1910-42-5	Paraquat dichloride – respirable	0.003	24-Hour	Health	
242	1910-42-5	Paraquat dichloride – total	0.015	24-Hour	Health	
243	N/A	Particulate matter – $\text{PM}_{2.5}$ (fine fraction)	28 (2015 target); 27 (2020 target)	24-Hour	Health	CAAQS It reflects a 3-year average of the annual 98 <sup>th</sup> percentile of the daily 24-hr average concentrations;  This value could also be used “as is” for comparison to the 24- hour measurement of air quality data

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
243	N/A	Particulate matter – PM <sub>2.5</sub> (fine fraction)	10.0 (2015 target); 8.8 (2020 target)	Annual	Health	CAAQS  It reflects a 3-year average of the annual average concentrations  This value could also be used “as is” for comparison to a single annual averaging of air quality data
243	N/A	Particulate matter – PM <sub>10</sub> (inhalable fraction)	50	24-Hour	Health	This is an interim AAQC provided as a guide for decision making, with no conversion to other averaging times
244	1406-05-9	Penicillin	0.1	24-Hour	Health	
245	19624-22-7	Pentaborane	1	24-Hour	Health	
246	87-86-5	Pentachlorophenol	20	24-Hour	Health	
247	127-18-4	Perchloroethylene	360	24-Hour	Health	
248	108-95-2	Phenol	30	24-Hour	Health	
249	75-44-5	Phosgene	45	24-Hour	Health	
250	7803-51-2	Phosphine	10	24-Hour	Health	



No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
251	7664-38-2	Phosphoric acid	7	24-Hour	Health	Express as total phosphoric acid calculated in accordance with the following formula: $A = B + (C \times 1.40)$ , where, A = the amount (or concentration) of total phosphoric acid, B = the amount (or concentration) of phosphoric acid, C = the amount (or concentration) of phosphoric pentoxide
252	10025-87-3	Phosphorous oxychloride	12	24-Hour	Health	
253	10026-13-8	Phosphorous pentachloride	10	24-Hour	Health	
254	85-44-9	Phthalic anhydride	120	24-Hour	Particulate	
255	2062-78-4	Pimozide	1	24-Hour	Health	
256	7440-06-4	Platinum - water soluble compounds	0.2	24-Hour	Health	
257	NA	Polybutene-1-sulfone	120	24-Hour	Particulate	
258	1336-36-3	Polychlorinated biphenyls (PCBs)	0.035	Annual	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
258	1336-36-3	Polychlorinated biphenyls (PCBs)	0.15	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
259	9010-98-4	Polychloroprene	500	24-Hour	Health	
260	9016-87-9	Polymeric methane diphenyl diisocyanate (PMDI)	0.7	24-Hour	Health	
261	151-50-8	Potassium cyanide	120	24-Hour	Particulate	
262	1310-58-3	Potassium hydroxide	14	24-Hour	Corrosion	
263	7757-79-1	Potassium nitrate	120	24-Hour	Particulate	
264	71-23-8	Propanol, n- (Propyl alcohol)	16,000	24-Hour	Health	
265	123-38-6	Propionaldehyde	10	10-minute	Odour	
266	79-09-4	Propionic acid	100	1-Hour	Odour	To be updated
267	123-62-6	Propionic anhydride (as Propionic acid)	100	1-Hour	Odour	To be updated
268	109-60-4	Propyl acetate, n-	6,600	24-Hour	Health	
269	115-07-1	Propylene	4,000	24-Hour	Health	
270	78-87-5	Propylene dichloride	2,400	24-Hour	Odour	To be updated
271	57-55-6	Propylene glycol	120	24-Hour	Particulate	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
272	107-98-2	Propylene glycol methyl ether	121,000	10-minute	Odour	
273	108-65-6	Propylene glycol monomethyl ether acetate	5,000	24-Hour	Odour	To be updated
274	75-56-9	Propylene oxide	0.3	Annual	Health	
274	75-56-9	Propylene oxide	1.5	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
275	110-86-1	Pyridine	150	24-Hour	Health	
275	110-86-1	Pyridine	80	10-minute	Odour	
276	106-51-4	Quinone	15	24-Hour	Health	
277	7782-49-2	Selenium	10	24-Hour	Health	
278	7803-62-5	Silane	150	24-Hour	Health	
279	14464-46-1	Silica - respirable (<10 $\mu\text{m}$ diameter), cristabolite	5	24-Hour	Health	
280	14808-60-7	Silica - respirable (<10 $\mu\text{m}$ diameter), quartz	5	24-Hour	Health	
281	15468-32-3	Silica - respirable (<10 $\mu\text{m}$ diameter), tridymite	5	24-Hour	Health	
282	7440-22-4	Silver	1	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
283	7631-90-5	Sodium bisulphite	120	24-Hour	Health & Particulate	
284	7775-09-9	Sodium chlorate	6	24-Hour	Health	
285	7758-19-2	Sodium chlorite	20	24-Hour	Health	
286	143-33-9	Sodium cyanide	120	24-Hour	Particulate	
287	1310-73-2	Sodium hydroxide	10	24-Hour	Corrosion	
288	7631-99-4	Sodium nitrate	7,000	24-Hour	Health	
289	7772-99-8	Stannous chloride (as Sn)	10	24-Hour	Health	
290	7440-24-6	Strontium	120	24-Hour	Particulate	
291	1633-05-2	Strontium carbonate	120	24-Hour	Particulate	
292	18480-07-4	Strontium hydroxide	120	24-Hour	Particulate	
293	1314-11-0	Strontium oxide	120	24-Hour	Particulate	
294	100-42-5	Styrene	400	24-Hour	Health	
295	5329-14-6	Sulfamic acid	120	24-Hour	Particulate	
296	7446-09-5	Sulphur dioxide	67 ppb	10-minute	Health	AAQC for implementation; where 1 ppb of sulphur dioxide is equal to $2.66 \mu\text{g}/\text{m}^3$ (at $20.0^\circ\text{C}$ and 1 atmosphere), rounded

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
296	7446-09-5	Sulphur dioxide	40 ppb	1-hour	Health	Converted from the 10-minute AAQC to allow assessment of 1-hour air quality data for implementation; where 1 ppb of sulphur dioxide is equal to 2.66 $\mu\text{g}/\text{m}^3$ (at 20.0°C and 1 atmosphere), rounded
296	7446-09-5	Sulphur dioxide	4 ppb	Annual	Vegetation	AAQC for implementation; where 1 ppb of sulphur dioxide is equal to 2.66 $\mu\text{g}/\text{m}^3$ (at 20.0°C and 1 atmosphere), rounded
297	2551-62-4	Sulphur hexafluoride	600,000	24-Hour	Health	
298	7664-93-9	Sulphuric acid	5	24-Hour	Health	
299	N/A	Suspended particulate matter	60	Annual	Visibility	As the geometric mean of daily measurements over a year
299	N/A	Suspended particulate matter	120	24-Hour	Visibility	
300	14807-96-6	Talc - fibrous	2	24-Hour	Health	
301	13494-80-9	Tellurium (except hydrogen telluride)	10	24-Hour	Health	
302	4559-86-8	Tetrabutylurea	10	24-Hour	Health	
303	109-99-9	Tetrahydrofuran	93,000	24-Hour	Odour	To be updated

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
304	137-26-8	Tetramethyl thiuram disulphide	10	24-Hour	Health	
305	62-56-6	Thiourea	20	24-Hour	Health	
306	7440-31-5	Tin	10	24-Hour	Health	
307	7440-32-6	Titanium	120	24-Hour	Particulate	
308	13463-67-7	Titanium dioxide	34	24-Hour	Health	
309	35711-34-3	Tolmetin sodium	5	24-Hour	Health	
310	108-88-3	Toluene	2,000	24-Hour	Odour	To be updated
311	584-84-9	Toluene di-isocyanate, 2,4-	0.2	24-Hour	Health	
312	26471-62-5	Toluene di-isocyanate, 2,4- and 2,6- (mixed isomers)	0.2	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
313	N/A	Total reduced sulphur (TRS) compounds (for facilities that are part of the class identified by NAICS code 3221 (Pulp, Paper and Paperboard Mills))	14	24-Hour	Health	Applies to a mixture of reduced sulphur compounds, primarily dimethyl disulphide, dimethyl sulphide, hydrogen sulphide and mercaptans  Calculated as the sum of the concentrations of the reduced sulphur compounds  If monitoring a specific reduced sulphur compound, then the AAQC for that specific compound applies
313	N/A	Total reduced sulphur (TRS) compounds (for facilities that are part of the class identified by NAICS code 3221 (Pulp, Paper and Paperboard Mills))	13	10-minute	Odour	See TRS note above for 24-hour AAQC
313	N/A	Total reduced sulphur (TRS) compounds (for other facilities)	7	24-Hour	Health	See TRS note above for 24-hour AAQC for Pulp, Paper and Paperboard Mills
313	N/A	Total reduced sulphur (TRS) compounds (for other facilities)	13	10-minute	Odour	See TRS note above for 24-hour AAQC for Pulp, Paper and Paperboard Mills
314	56-35-9	Tributyltin oxide	0.14	24-Hour	Health	
315	120-82-1	Trichlorobenzene, 1,2,4-	400	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
316	79-01-6	Trichloroethylene (TCE)	2.3	Annual	Health	
316	79-01-6	Trichloroethylene (TCE)	12	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
317	75-69-4	Trichlorofluoromethane	6,000	24-Hour	Health	See O. Reg. 463/10 for Ozone Depleting Substances and Other Halocarbons for further restrictions on these, and several other ozone-depleting substances
318	76-05-1	Trifluoroacetic acid	15	24-Hour	Health	
319	76-13-1	Trifluorotrichloroethane	800,000	24-Hour	Health	See O. Reg. 463/10 for Ozone Depleting Substances and Other Halocarbons for further restrictions on these, and several other ozone-depleting substances
320	75-50-3	Trimethyl amine	0.5	1-Hour	Odour	To be updated
321	526-73-8	Trimethylbenzene, 1,2,3- (individual isomer or Trimethylbenzene mixture)	220	24-Hour	Health	
322	95-63-6	Trimethylbenzene, 1,2,4- (individual isomer or trimethylbenzene mixture)	220	24-Hour	Health	



No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
323	108-67-8	Trimethylbenzene, 1,3,5- (individual isomer or trimethylbenzene mixture)	220	24-Hour	Health	
324	77-99-6	Trimethylol propane	1,250	24-Hour	Health	
325	N/A	Tripropyltin methacrylate	1	24-Hour	Health	
326	7440-61-1	Uranium and uranium compounds (U in $\text{PM}_{10}$ )	0.03	Annual	Health	
326	7440-61-1	Uranium and uranium compounds (U in SPM)	0.06	Annual	Health	
326	7440-61-1	Uranium and uranium compounds (U in $\text{PM}_{10}$ )	0.15 (as $\text{PM}_{10}$ ); 0.3 (as SPM)	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
327	7440-62-2	Vanadium	2	24-Hour	Health	
328	75-01-4	Vinyl chloride	0.2	Annual	Health	
329	75-01-4	Vinyl chloride	1	24-Hour	Health	Converted from the annual AAQC to allow assessment of 24-hour air quality data
330	75-35-4	Vinylidene chloride (1,1-Dichloroethene)	10	24-Hour	Health	
331	81-81-2	Warfarin	10	24-Hour	Health	

No.	CASRN	Contaminant	AAQC ( $\mu\text{g}/\text{m}^3$ )	Averaging Time	Basis	Notes
332	1330-20-7	Xylenes	730	24-Hour	Health	Applies to the following isomers, individually or as a mixture: o-Xylene (CASRN 95-47-6), p-Xylene (CASRN 106-42-3), and m-Xylene (CASRN 108-38-3)
332	1330-20-7	Xylenes	3,000	10-minute	Odour	Applies to the following isomers, individually or as a mixture: o-Xylene (CASRN 95-47-6), p-Xylene (CASRN 106-42-3), and m-Xylene (CASRN 108-38-3)
333	7440-66-6	Zinc	120	24-Hour	Particulate	
334	7646-85-7	Zinc chloride	10	1-Hour	Health	
335	557-05-1	Zinc stearate	35	24-Hour	Health	

### Appendix: Dioxins, Furans and Dioxin-Like PCBs to which the AAQC Applies

Application of the AAQC for dioxins, furans, and dioxin-like PCBs requires the calculation of the total toxicity equivalent (TEQ) concentration contributed by all dioxin-like compounds in the mixture by using the following formula:

$$A = \Sigma(B \times C), \text{ where}$$

A = the amount (or concentration) of total dioxins, furans and dioxin-like PCBs in TEQ

B = the amount (or concentration) of each dioxin-like compound listed

C = the corresponding Toxic Equivalency Factor (TEF) for each dioxin-like compound listed, according to the reevaluation conducted in 2005 by the World Health Organisation (Van den Berg et al., Toxicol Sci. 2006; 93: 223-41)

This scheme is intended to be used with isomer specific analytical results. For the purpose of calculating the total TEQ concentration for a mixture of dioxin-like compounds, a value of half the minimum detection limit (MDL) should be substituted for concentrations less than the MDL.

Other PCBs (i.e. the non-dioxin-like PCBs) are to be evaluated against the existing AAQC for PCBs (CAS 1336-36-3).

Row	CASRN	Dioxins, Furans and Dioxin-like PCBs	WHO <sub>2005</sub> TEFs
1	1746-01-6	2,3,7,8-Tetrachlorodibenzo-p-dioxin [2,3,7,8-TCDD]	1
2	40321-76-4	1,2,3,7,8-Pentachlorodibenzo-p-dioxin [1,2,3,7,8-PeCDD]	1
3	39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,4,7,8-HxCDD]	0.1
4	57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin [1,2,3,6,7,8-HxCDD]	0.1
5	19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin [1,2,3,7,8,9-HxCDD]	0.1
6	35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin [1,2,3,4,6,7,8-HpCDD]	0.01
7	3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin [1,2,3,4,6,7,8,9-OCDD]	0.0003
8	51207-31-9	2,3,7,8-Tetrachlorodibenzofuran [2,3,7,8-TCDF]	0.1
9	57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran [1,2,3,7,8-PeCDF]	0.03
10	57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran [2,3,4,7,8-PeCDF]	0.3

<b>11</b>	70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran [1,2,3,4,7,8-HxCDF]	0.1
<b>12</b>	57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran [1,2,3,6,7,8-HxCDF]	0.1
<b>13</b>	72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran [1,2,3,7,8,9-HxCDF]	0.1
<b>14</b>	60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran [2,3,4,6,7,8-HxCDF]	0.1
<b>15</b>	67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran [1,2,3,4,6,7,8-HpCDF]	0.01
<b>16</b>	55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran [1,2,3,4,7,8,9-HpCDF]	0.01
<b>17</b>	39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran [1,2,3,4,6,7,8,9-OCDF]	0.0003
<b>18</b>	32598-13-3	3,3',4,4'-Tetrachlorobiphenyl [3,3',4,4'-tetraCB (PCB 77)]	0.0001
<b>19</b>	70362-50-4	3,4,4',5- Tetrachlorobiphenyl [3,4,4',5-tetraCB (PCB 81)]	0.0003
<b>20</b>	57465-28-8	3,3',4,4',5- Pentachlorobiphenyl (PCB 126) [3,3',4,4',5-pentaCB (PCB 126)]	0.1
<b>21</b>	32774-16-6	3,3',4,4',5,5'- Hexachlorobiphenyl [3,3',4,4',5,5'-hexaCB (PCB 169)]	0.03
<b>22</b>	32598-14-4	2,3,3',4,4'- Pentachlorobiphenyl [2,3,3',4,4'-pentaCB (PCB 105)]	0.00003
<b>23</b>	74472-37-0	2,3,4,4',5- Pentachlorobiphenyl [2,3,4,4',5-pentaCB (PCB 114)]	0.00003
<b>24</b>	31508-00-6	2,3',4,4',5- Pentachlorobiphenyl [2,3',4,4',5-pentaCB (PCB 118)]	0.00003
<b>25</b>	65510-44-3	2',3,4,4',5- Pentachlorobiphenyl [2',3,4,4',5-pentaCB (PCB 123)]	0.00003
<b>26</b>	38380-08-4	2,3,3',4,4',5- Hexachlorobiphenyl [2,3,3',4,4',5-hexaCB (PCB 156)]	0.00003
<b>25</b>	69782-90-7	2,3,3',4,4',5'- Hexachlorobiphenyl [2,3,3',4,4',5'-hexaCB (PCB 157)]	0.00003
<b>28</b>	52663-72-6	2,3',4,4',5,5'- Hexachlorobiphenyl [2,3',4,4',5,5'-hexaCB (PCB 167)]	0.00003

<b>29</b>	39635-31-9	2,3,3',4,4',5,5'- Heptachlorobiphenyl [2,3,3',4,4',5,5'-heptaCB (PCB 189)]	0.00003
-----------	------------	--	---------