

New Jersey Department of Environmental Protection
Division of Air Quality
Bureau of Technical Services
Air Quality Evaluation Section

REVISIONS TO THE NJDEP/DAQ RISK SCREENING WORKSHEET

August 4, 2009

The NJDEP Division of Air Quality Risk Screening Worksheet has been revised to incorporate a number of updates in toxicity values.

Specific changes to the lists of unit risk factors (URFs), long-term reference concentrations (RfCs), and short-term RfCs are noted below. The revised lists are dated August 2009, and replace the ones dated May 2007. The lists (including references) can be found at www.nj.gov/dep/aqpp/risk.html. For additional information, contact Olga Boyko at 609-633-1108 or Olga.Boyko@dep.state.nj.us.

For toxicity references, see the 2007 and 2009 URF, RfC, and short-term RfC lists.

Unit Risk Factors

Changes

1,4-Dichloro-2-butene – changed from 2.6E-3 (HEAST 97) to 4.2E-3 (USEPA 09)

Deletions

Quinoline

Additions

Cobalt

DDE

Nitrobenzene

Reference Concentrations (Long-Term)

Changes (all values are in $\mu\text{g}/\text{m}^3$)

Acetone cyanohydrin – changed from 10 (HEAST 97) to 60 (USEPA 09)

Arsenic – changed from 0.03 (Cal 05a) to 0.015 (Cal 08)

Chloroprene – changed from 1 (Cal 05b - deleted) to 7 (HEAST 97)

Cobalt – changed from 0.005 (Cal 97) to 0.006 (USEPA 09)

Dicyclopentadiene – changed from 0.2 (HEAST 97) to 7 (USEPA 09)

Formaldehyde – changed from 3 (Cal 05a) to 9 (Cal 08)

o-Nitroaniline – changed from 0.2 (HEAST 97) to 0.1 (USEPA 09)

Nitrobenzene – changed from 1.7 (Cal 05b) to 9 (IRIS)

Toluene - changed from 300 (Cal 05a) to 5000 (IRIS)

1,2,4-Trichlorobenzene – changed from 200 (HEAST 97) to 4 (USEPA 09)

Deletions

Bis(2-ethylhexyl)phthalate
Copper
Methyl mercury
Propylene glycol
Zinc/zinc oxide

Additions

Methyl ethyl ketone
Propionaldehyde

Short-Term Reference Concentrations**Changes (all values are in $\mu\text{g}/\text{m}^3$)**

Acrolein – changed from 0.19 (Cal 00) to 2.5 (Cal 08)
Aniline - changed from 8-hour to 1-hour adjusted AEGL (from 380 to 3000)
Arsenic and inorganic arsenic compounds - changed from 0.19 (Cal 00) to 0.2 (Cal 08).
Also, averaging time changed from 4 hours to 1 hour.
Benzene – averaging time changed from 6 hours to 1 hour.
Carbon disulfide - averaging time changed from 6 hours to 1 hour.
Carbon tetrachloride - averaging time changed from 7 hours to 1 hour.
Chloroform - averaging time changed from 7 hours to 1 hour.
Ethylene glycol monoethyl ether - averaging time changed from 6 hours to 1 hour.
Ethylene glycol monoethyl ether acetate - averaging time changed from 6 hours to 1 hour.
Ethylene glycol monomethyl ether - averaging time changed from 6 hours to 1 hour.
Formaldehyde – changed from 94 (Cal 00) to 55 (Cal 08)
Mercury – changed from 1.8 (Cal 00) to 0.6 (Cal 08)
Methyl chloroform – changed from 68000 (Cal 00 & 08) to 9000 (IRIS)
Methyl ethyl ketone – changed from 5000 (IRIS 24-hour) to 13000 (Cal 08) 1-hour
2,4-Toluene diisocyanate – changed from 8-hour to 1-hour adjusted AEGL (from 7 to 14)

Deletions

Removed arsine (Cal 00). Now included in “Arsenic and inorganic arsenic compounds” (Cal 08)

Additions

Acetaldehyde (Cal 08)
Manganese and manganese compounds (Cal 08) (8-hour averaging time)