

200 ppm xylene with 20-minute peak exposures to 400 ppm, in some cases additionally combining peak exposures with physical exercise resulting in greater uptake of the chemical, and finding only minimal central nervous system effects. The difficulty in defining an AEGL-2 level for xylene

comes from its "all-or-nothing" continuum of toxicity: Toxicity ranges from mild irritation to narcosis, with little happening in between. The AEGL-3 levels represent the threshold for narcosis, and are protective as supported by human data demonstrating that exposure to 690 ppm for 15 minutes

resulted in lightheadedness/dizziness and a 30 minute exposure to 700 ppm resulted in nausea, vomiting, dizziness, or vertigo.

The proposed AEGL values are listed in Table 11 of this unit.

TABLE 11.—SUMMARY OF PROPOSED AEGL VALUES FOR XYLENES [PPM (MG/M³)]

Classification	10-minutes	30-minutes	1-hour	4-hours	8-hours	Endpoint (Reference)
AEGL-1 (Nondisabling)	130 (560)	130 (560)	130 (560)	130 (560)	130 (560)	Eye irritation in human volunteers exposed to 400 ppm mixed xylenes for 30 minutes (Hastings et al., 1986)
AEGL-2 (Disabling)	990 (4,300)	480 (2,100)	430 (1,900)	430 (1,900)	430 (1,900)	Rats exposed to 1,300 ppm mixed xylenes for 4 hours exhibited poor coordination (Carpenter et al., 1975)
AEGL-3 (Lethal)	2,100 (9,100)	1,000 (4,300)	930 (4,000)	930 (4,000)	930 (4,000)	Rats exposed to 2,800 ppm for 4 hours exhibited prostration followed by a full recovery (Carpenter et al., 1975)

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IV. Next Steps

The NAC/AEGL Committee plans to publish "Proposed" AEGL values for five-exposure periods for other chemicals on the priority list of 85 in groups of approximately 10 to 20 chemicals in future **Federal Register** notices during the calendar year 2003.

The NAC/AEGL Committee will review and consider all public comments received on this notice, with revisions to the "Proposed" AEGL values as appropriate. The resulting AEGL values will be established as "Interim" AEGLs and will be forwarded to the National Research Council, National Academy of Sciences (NRC/NAS), for review and comment. The "Final" AEGLs will be published under the auspices of the NRC/NAS following concurrence on the values and the scientific rationale used in their development.

List of Subjects

Environmental protection, Hazardous chemicals, Worker protection.

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