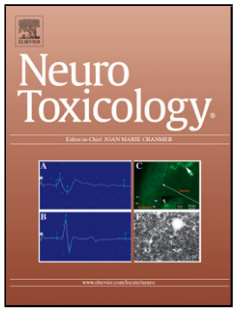

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Manganese and Neurobehavioral Impairment

A Preliminary Risk Assessment

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Highlights

- Many investigations have identified associations between occupational exposure to manganese and neurobehavioral deficits.
- From these studies there are estimates of Mn exposure response that are sufficient to support a general risk assessment.
- Constant Mn exposure over long periods may have some associated neurobehavioral effects that attain a maximal or steady-state value over a shorter period such as a few years.
- Inhalable particle size appears to be an important determinant of manganese neurotoxicity with small respirable << 0.1 µm dia. particle exposures having higher potency and associated excess lifetime risks of one percent at air concentrations of 10 µg/m^3 Mn.