

# **2009 Development of a Shower Exposure Model for Benzene – Background Work for Update of Soil Quality and Drinking Water Guidelines for Benzene**

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The current soil quality guidelines for benzene have been developed for protection of drinking water. As described in the Health Canada drinking water guideline, the carcinogenic risk associated with exposure to benzene in drinking water is determined using a multi-pathway exposure model. The use of this multi-exposure pathway model is required due to the high volatility of benzene in drinking water. From such modelling efforts, a cumulative dose to the body over time is calculated based on intake of benzene from drinking water via ingestion, inhalation and dermal exposure. The cumulative intake dose is used to determine a drinking water guideline, and the soil quality guideline is subsequently identified to ensure

protection of drinking water.

2009 EQM\_Benzene Shower Exposure

2010 EQM\_Benzene Shower Exposure

2009 EQM\_Benzene Shower Exposure

2009 EQM\_n Hexane Presentation