



Massachusetts
Department
ENVIRONMENTAL
PROTECTION

Massachusetts Interim Drinking Water Advice for Perchlorate

Concern about perchlorate contamination of groundwater on portions of Cape Cod has prompted the Bourne Water District to request the Massachusetts Department of Environmental Protection to provide guidance for perchlorate in drinking water. At this time, there is no final federal or state drinking water standard for this chemical, although draft guidance is available from the U.S. Environmental Protection Agency (U.S. EPA).

Massachusetts Department of Environmental Protection's Office of Research and Standards has performed an initial review of the U.S. EPA's current work on perchlorate (Draft Toxicological Review and Risk Characterization for Perchlorate, January 16, 2002*). EPA's draft document identifies a draft chronic oral reference dose and an associated level in drinking water of 1 ug/L, or 1 part per billion (ppb). The U.S. EPA has cautioned that the numbers contained in their document are draft and are not intended for setting drinking water standards. The U.S. EPA is currently reexamining the draft in light of recent review comments. Their draft guidance does, however, represent a thorough evaluation of the currently available toxicological information.

The limits identified by U.S. EPA are intended to protect against potential adverse effects from perchlorate ingestion on the thyroid, which could lead to effects on the developing nervous system. Those at most risk are: pregnant women, infants, children and those with a hypothyroid condition. The draft U.S. EPA value of 1.0 ppb for drinking water is also similar to the "relevant standard" of 1.5 ppb for perchlorate that EPA Region 1 is using to evaluate groundwater remedial alternatives at Camp Edwards.

As a precautionary measure, based on the above, DEP recommends that pregnant women, infants, children up to the age of 12, and individuals with hypothyroidism do not consume drinking water containing concentrations of perchlorate exceeding 1 ppb. Based upon current understanding of the behavior of perchlorate in water, potential exposures from bathing and skin contact with contaminated water are not regarded as potential exposure routes of concern even at levels above 1 ppb.

DEP will be asking U.S. EPA to move forward on finalizing its toxicological work on perchlorate and to identify a federal Health Advisory level for perchlorate. MA DEP will also be working with the U.S. EPA and the Bourne Water District to ensuring safe drinking water for the citizens of Bourne.

For More Information Contact: MA DEP, Office of Research and Standards, Phone 617-292-5570; or
MA DEP Southeastern Regional Office, Phone 508-946-2764.

* Available on the web at: <http://oaspub.epa.gov/eims/partnQry.detail?dsid=24002&partner=ORD-NCEA>





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