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Questions and Answers about PERCHLORATE

What is perchlorate?

Perchlorate is an inorganic chemical that is used in solid rocket propellants, fireworks, and explosives. It is also used in a variety of commercial products, such as a component of air bag inflators, nuclear reactors and electronic tubes, lubricating oils, tanning and finishing leather, and fabrics and dyes. It is also used in industrial processes such as electroplating, aluminum refining, rubber manufacture, and the production of paints and enamels. Chemically, perchlorate consists of 4 oxygen atoms and one chlorine atom. It dissolves easily in water and is persistent in the environment.

What is the human health concern?

Ingesting perchlorate can result in risks to human health. Perchlorate interferes with the ability of the thyroid gland to utilize iodine to produce thyroid hormones. Thyroid hormones are needed for normal prenatal and postnatal growth and development, and for normal metabolic function in the adult. People with low levels of thyroid hormone, the fetus and young children, are expected to be most sensitive to the effects of perchlorate.

What has U.S. Environmental Protection Agency done with perchlorate?

EPA has issued several toxicological reviews and human health risk assessments for perchlorate. The 2002 assessment, still in draft form, proposes lower levels of perchlorate in drinking water than previous assessments. The 2002 assessment proposes 1 part perchlorate per billion in drinking water as a "safe" level for ingestion. A formal drinking water standard based on an analysis of health risks and the costs of treatment is several years away.

What is being done about the situation in Aberdeen?

The City of Aberdeen has been regularly testing its water supply wells and treated water for perchlorate. Maryland Department of the Environment has provided guidance to the City and is tracking the progress of the Army investigation of the extent of ground water contamination on Post. The U.S. EPA has formal oversight responsibility for the ground water clean up activity on Post. All parties are in regular and frequent communication concerning their progress.

Where can I find more information?

<http://www.epa.gov/ncea/archive/perchlorate/perch2.htm>

<http://www.dhs.cahwnet.gov/ps/ddwem/chemicals/perchl/actionlevel.htm>

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Maryland Department of the Environment
 Water Supply Program
 1800 Washington Blvd, STE 450
 Baltimore, MD 21230-1708
 Phone (410) 537-3702 / Fax: (410) 537-3157

facsimile transmittal

To: Julia Muller Fax: 505 827-1628
 From: John Grace Date: 11-19-02
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Re: _____

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