

## Endothall Screening Profile

*Endothall is a chemical that may be present in potential drinking water sources in Minnesota. The information in this profile was collected for the screening process of the Minnesota Department of Health's Contaminants of Emerging Concern (CEC) program in March 2012. The chemicals nominated to the CEC program are screened and ranked based on their toxicity and presence in Minnesota waters. Based on these rankings, some chemicals are selected for a full review. CEC program staff have not selected endothall for a full review.*

### Endothall Uses

Endothall is an aquatic herbicide used to control aquatic vegetation and algae in lakes, ponds, and irrigation canals in Minnesota.

### Endothall in the Environment

Endothall enters the environment through regular aquatic application. Endothall is not currently being monitored for in Minnesota waters; however, it has occasionally been detected in surface water in other states at levels that exceed federal guidelines.<sup>1</sup> The U.S. Environmental Protection Agency has established a maximum contaminant level (MCL) of 100 parts per billion (ppb) in drinking water.<sup>2</sup> Endothall will likely break down in water after a few weeks.<sup>3</sup>

Endothall may be harmful to aquatic life including fish and birds. Endothall is not expected to build up in tissues of fish or other wildlife.<sup>1,3</sup>

### Exposure to Endothall

Exposure to endothall may occur by drinking contaminated water or swimming in contaminated water. People who apply endothall to lakes, ponds, or canals are also exposed.



### Potential Health Effects

Endothall is a caustic chemical and can cause severe irritation to tissue. In animal studies, endothall applied directly to the skin destroyed the upper layers of skin.<sup>1</sup> Additionally, when animals ate endothall it caused lesions in the stomach and intestinal tract.<sup>1</sup>

MDH developed a Pesticide Rapid Assessment value of 8 parts per billion (ppb) for endothall in drinking water. A person drinking water at or below this level would have little or no risk of health effects. A full review of endothall is possible; however, it is ranked lower than other nominated CEC chemicals at this time.

### References

1. U.S. Environmental Protection Agency. (EPA) 2005. Reregistration Eligibility Decision (RED). <https://www.epa.gov/nscep> Search: "738R05008 Endothall"
2. EPA. Regulated Drinking Water Contaminants. 2014. <https://safewater.zendesk.com/hc/en-us/sections/202366398>
3. National Library of Medicine. Toxnet. Hazardous Substances Data Bank. <http://toxnet.nlm.nih.gov/cgi-bin/sis/search/a?dbs+hsdb:@term+@DOCNO+391>
4. EPA. Integrated Risk Information System (IRIS). 1991. [https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance\\_nmbr=155](https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=155)

For more information, contact:  
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# Contaminants of Emerging Concern Program

## Chemical Review Process

The Contaminants of Emerging Concern (CEC) program investigates the potential health concerns of contaminants of emerging concern in drinking water. This investigation includes a rapid assessment ('screening') to prioritize nominated chemicals for in-depth research and evaluation that result in drinking water guidance and information about exposure.

## Chemical Nomination and Eligibility

Minnesota risk managers, stakeholders, and the public are encouraged to nominate contaminants for review. After chemicals are nominated, MDH program staff determine eligibility by examining the likelihood that the chemical will enter Minnesota waters and whether adequate guidance already exists.

## Screening and Risk Based Selection

Program staff conduct a screening of where and how a contaminant is used in the state, its potential to enter the water supply, and its potential to harm humans. The results from the screening are used to prioritize nominated chemicals.

Chemicals having higher exposure and harm potential are selected for in-depth review and development of guidance (a contaminant water concentration that is not harmful to people). Chemicals that rank lower remain candidates for future in-depth review. For some contaminants, however, the information is too limited. For chemicals that are not selected for in-depth review, the results of the screening assessment are summarized in a Screening Profile. The screening and prioritization process is repeated as additional chemicals are nominated and screened.

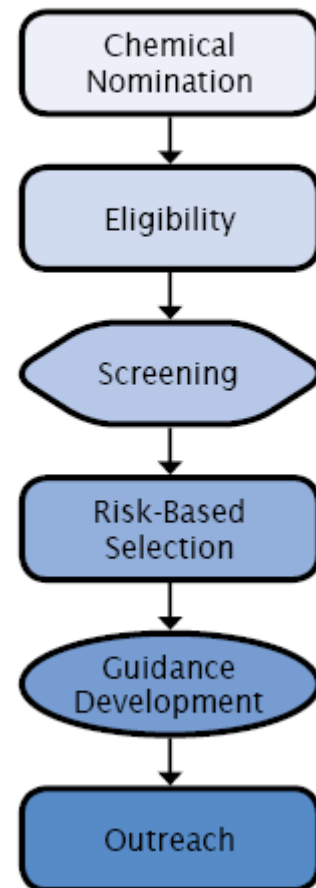
## Guidance Development

When a chemical is selected for a full review, program staff carefully review exposure and toxicological information to understand how humans may be exposed and what adverse health effects occur from exposure. Staff combine the results of in-depth analyses of toxicity and exposure to calculate a guidance, a level of contaminant in water that causes little to no harm to someone drinking the water.

## Outreach

CEC program staff work to communicate the results of the chemical review process. This includes making key findings publicly available on web pages and at a variety of meetings and events. An email subscription service (GovDelivery) is also used to alert the interested public (subscribers) of chemical review activities and guidance values.

## Chemical Review Process



Subscribe to the CEC Program GovDelivery service to receive notification when reviews are initiated for water contaminants and other announcements by visiting:  
<http://www.health.state.mn.us/cec>