



Bentazon and Drinking Water

Bentazon is a contaminant that has been found in waters that could be used as drinking water sources in Minnesota. The Minnesota Department of Health (MDH) developed a health-based guidance value for bentazon in drinking water and, based on this value, does not expect levels of bentazon in drinking water to harm Minnesotans.

What is bentazon?

Bentazon is an herbicide used to control broad leaf weeds and sedge weeds among food crops. It is most often used on soybean crops, but can also be used on alfalfa, beans and corn, and in turf and lawn management.

Has bentazon been found in Minnesota waters?

Bentazon has been detected by the Minnesota Department of Agriculture (MDA) in groundwater, including in some drinking water well samples and community water supplies. Concentrations of bentazon in drinking water and water supplies samples were lower than MDH guidance values. Bentazon has been detected in surface waters that are not used for drinking water.^{1,2}

What is the MDH guidance value for bentazon in drinking water?

Based on available information, MDH developed a guidance value of 30 parts per billion (ppb) for bentazon in drinking water. A person drinking water at or below the guidance value would have little or no risk of health effects.

Can bentazon in drinking water affect my health?

Short exposures to bentazon at levels much higher than the MDH guidance value are associated with developmental effects, including fetal death. Longer exposure at levels above the current guidance value are associated with anemia and other blood system effects. Bentazon has been shown to change the size of thyroid glands in animals, an indication that it might be altering thyroid function.

MDH does not expect current levels found in drinking water to harm Minnesotans.

At a Glance

Bentazon is...

- an herbicide used to control broad leaf weeds and sedge weeds among food crops.

Bentazon enters your body from...

- breathing it in or getting it on your skin, if you work with or near this chemical.
- drinking contaminated water.
- eating food with bentazon residue in it.

Your exposure to bentazon can be reduced by....

- following label instructions for safe use.
- wearing protective clothing when using bentazon.
- washing hands and clothing after using or being around bentazon.

Bentazon gets into the environment by....

- use on food crops and lawns.

Bentazon in drinking water is safe if...

the level is lower than the MDH guidance value of 30 ppb.

How am I exposed to bentazon?

Some people may be exposed to bentazon because they work with or near this chemical. Bentazon can be inhaled or get on your skin when it is being applied to crops or turf, or shortly thereafter.

People who do not work with or near bentazon may be exposed to it by drinking contaminated water or eating food with bentazon residue.

How can I reduce my exposure to bentazon?

If you work with bentazon or it has been used on your turf or lawn, always follow the label instructions for safe use and re-entering treated areas. You can reduce your exposure by wearing protective clothing such as goggles, gloves, and aprons when using bentazon. You should avoid bringing bentazon into the home by removing protective clothing and washing your hands well after handling bentazon.

How does bentazon get into the environment and how long does it stay in the environment?

Bentazon enters the environment when it is applied to crops to control weeds. Bentazon can travel through soil quickly, but is often broken down by micro-organisms in the soil. Bentazon breaks down quickly when exposed to sunlight, but can stay in groundwater for longer periods of time.^{3, 4}

What are the potential environmental impacts of bentazon?

Based on currently available information, bentazon does not appear to cause harm to aquatic plants or aquatic animals at levels found in Minnesota waters.

What Minnesotans Need to Know . . .

Bentazon has not been found at levels of concern for human health in Minnesota drinking water. If you work with or use bentazon, follow the label instructions for safe use, wear protective clothing, and avoid bringing residues into your home.

The Health Risk Assessment Unit...

evaluates the health risks from contaminants in groundwater. MDH works in collaboration with the Minnesota Pollution Control Agency and the Minnesota Department of Agriculture to understand the occurrence and environmental effects of contaminants in water.

References

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2. Minnesota Department of Agriculture. 2013. 2012 Water Quality Monitoring Report. <http://www.mda.state.mn.us/chemicals/pesticides/~media/Files/chemicals/mace/2012wqm.ashx>
3. California Environmental Protection Agency, 1999. Public Health Goal for Bentazon in Drinking Water. http://oehha.ca.gov/water/phg/pdf/bentaz_f.pdf.
4. Hazardous Substance Data Bank (National Library of Medicine). 2014. <http://toxnet.nlm.nih.gov/cgi-bin/sis/search/r?dbs+hsdb:@term+@rn+@rel+25057-89-0>

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