

## Acknowledgement:

This Fact Sheet is one of a series developed by an Interagency Committee with representatives from Saskatchewan Ministry of Health, Regional Health Authorities, Saskatchewan Watershed Authority, Saskatchewan Ministry of Environment, Saskatchewan Ministry of Agriculture, Agriculture and Agri-Food Canada - AESB and Health Canada.

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# Chloride

(For Private Water and Health Regulated Public Water Supplies)

## What Is Chloride?

Every water supply contains some chloride. Chloride is common in nature, generally as a salt. Most chloride found in nature is in the oceans. However, underground deposits are found in most Canadian provinces. Sodium chloride is also used in industry for making chemicals, and to melt snow and ice.

## How Does Chloride Get Into Water?

In Canada, chloride in groundwater may be due to a number of natural or human sources. This can include dissolving rock, highway salt, industry, oil wells, sewage, irrigation drainage, and leachates from garbage dumps. Chloride is dissolved in water and moves with groundwater. Therefore, sources of chloride can impact water quality in distant locations.

## How Does Chloride Affect My Health?

Chloride is needed for good health and may be important for kidney health, the nervous system and nutrition. There are no known health effects associated with chloride. However, the sodium often associated with chloride can be a concern to people suffering from heart disease or kidney disease.

## Other Considerations

Chloride does occur in nature. However, if chloride is present where it does not occur naturally, it may be due to human causes. Usually, chloride has a strong taste at high levels. However, it may not always be noticeable when present.

## How Can I Remove Chloride From My Drinking Water?

Chloride can be costly to remove from water. Boiling the water will NOT decrease the chloride concentration. Effective treatment technologies include: reverse osmosis, distillation, and ion exchange.

## What Is The Standard For Chloride In Drinking Water?

Saskatchewan's Drinking Water Quality Standards and Objectives and Health Canada's Guidelines for Canadian Drinking Water Quality both establish an aesthetic objective (AO) of less than 250 mg/L of chloride in drinking water.

Drinking water with levels of chloride above 250 mg/L may cause corrosion in distribution systems and may be detectable by taste. The level of 250 mg/L of chloride is sufficient to reduce agricultural yield particularly from some fruit and berry bearing plants. Home treatment systems should conform to the National Sanitation Foundation standard for the removal of total dissolved solids, which includes dissolved chloride (NSF Standard 58 for reverse osmosis units and NSF Standard 62 for distillation units).

## How Can I Find Out If There Is Chloride In My Water?

Most water quality testing laboratories can determine how much chloride is present in a water supply. For information on sampling instructions and containers, you should contact an accredited laboratory. If using the Saskatchewan Disease Control Laboratory (Provincial Lab), sample containers are available from the laboratory, local Health Regions, or rural municipalities.

## Need More Information?

### Health Regulated Public Water Supply

For more information on this fact sheet and/or other water quality issues relating to health regulated public water supplies contact your local health region public health inspector.

### Private Water Supply

For more information on how chloride impacts on human health contact your local health region office. For information on how chloride impacts agricultural operations contact Saskatchewan Ministry of Agriculture through your Regional Office, the Agricultural Knowledge Centre at 1-866-457-2377 or on the internet (<http://www.agriculture.gov.sk.ca>).

<p><b>Government of Saskatchewan</b> Water Information website <a href="http://www.SaskH2O.ca">www.SaskH2O.ca</a></p>	<p><b>Water Inquiry Line</b> Questions about water? Call 1-866-SASK H2O (1-866-727-5420) to be referred to proper agency.</p>
<p><b>Saskatchewan Ministry of Health</b> <a href="http://www.health.gov.sk.ca/environmental-health">http://www.health.gov.sk.ca/environmental-health</a> <b>Regional Health Offices</b> Saskatoon: Saskatoon (306) 655-4620 Sunrise: Yorkton (306) 786-0600 Kelsey Trail: Melfort (306) 752-6310 Five Hills: Moose Jaw (306) 691-1500 Sun Country: Weyburn (306) 842-8618 Heartland: Rosetown (306) 882-6474a Prairie North: North Battleford (306) 446-6400 Prince Albert Parkland: Prince Albert (306) 765-6600 Cypress: Swift Current (306) 778-5280 Regina Qu'Appelle: Regina (306) 766-7755 Mamawetan Churchill River: La Ronge (306) 425-8512 Keewatin Yatthe: Buffalo Narrows (306) 235-5811</p>	<p><b>Saskatchewan Watershed Authority</b>, Head Office, Moose Jaw (306) 694-3900 Website: <a href="http://www.swa.ca">www.swa.ca</a> <i>Regional Offices:</i> <a href="http://www.swa.ca/AboutUs/Contact.asp?type=Offices">http://www.swa.ca/AboutUs/Contact.asp?type=Offices</a></p> <p><b>Sask Water Corporation</b> Head Office, Moose Jaw Customer Service 1-888-230-1111 Website: <a href="http://www.saskwater.com">http://www.saskwater.com</a></p> <p><b>Agri-Environment Services Branch *</b> Agriculture and Agri-Food Canada Website <a href="http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1187362338955&amp;lang">http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1187362338955&amp;lang</a> <i>Regional Office:</i> <a href="http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1254830746884&amp;lang=eng">http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1254830746884&amp;lang=eng</a></p>
<p><b>Saskatchewan Ministry of Health</b> <b>Saskatchewan Disease Control Laboratory, Regina</b> General Inquiry 1-866-450-0000 Phone: (306) 798-2125 // Fax (306) 798-0071 Website: <a href="http://www.health.gov.sk.ca/lab">http://www.health.gov.sk.ca/lab</a></p>	<p><b>Saskatchewan Ministry of Agriculture</b> General Inquiry 1-866-457-2377 Agricultural Operations Regina (306) 787-4680 Irrigation Development Outlook (306) 867-5500 Website: <a href="http://www.agriculture.gov.sk.ca">www.agriculture.gov.sk.ca</a></p>
<p><b>Health Canada</b> First Nation and Inuit Health Branch, Regina (306) 780-5434 // FAX (306) 780-5107 Website: <a href="http://www.hc-sc.gc.ca">http://www.hc-sc.gc.ca</a></p>	<p><b>Saskatchewan Ministry of Environment</b> Toll-Free 1-800-567-4224 Spill Emergency Toll-Free 1-800-667-7525 Website: <a href="http://www.environment.gov.sk.ca">http://www.environment.gov.sk.ca</a></p>

\* Agri-Environment Services Branch (AESB) is an integration of three existing components: Prairie Farm Rehabilitation Administration (PFRA), National Land and Water Information Service (NLWIS) and Agri-Environmental Policy Bureau (AEPB).