

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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Alkalinity

(For Private Water and Health Regulated Public Water Supplies)

What Is Alkalinity?

Alkalinity is a measure of water's ability to neutralize acids. Bicarbonate, carbonate and hydroxide ions are the most common causes. Alkalinity is reported in milligrams per litre as calcium carbonate.

How Does Alkalinity Get Into Water?

Alkalinity usually comes from natural source. In some cases, water treatment devices can change the alkalinity of water.

How Does Alkalinity Affect My Health?

Direct health effects are not thought to be caused by alkalinity. Some alkalinity is helpful in decreasing the corrosion of pipe and solder. Corrosion can release materials like copper or lead into the water.

Other Considerations

Water with a high alkalinity (called alkaline water) often has an bad "soda" taste.

Highly alkaline waters may also cause excessive drying of the skin if used for washing. In addition, water with high alkalinity may cause scaling in pipes and plumbing.

How Can I Remove Alkalinity From My Drinking Water?

Alkalinity causing substances may be removed by reverse osmosis, distillation and softening.

What Is The Standard For Alkalinity In Drinking Water?

Saskatchewan Environment's Drinking Water Quality Standards and Objectives have established an aesthetic objective (AO) of 500 mg/L.

However, to help control corrosion and leaching in water pipes, alkalinity should be between 25 mg/L and 75 mg/L.

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

Most water quality testing laboratories can determine how much alkalinity 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, 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 alkalinity impacts on human health contact your local health region office. For information on how alkalinity 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>).

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| <p>Government of Saskatchewan Water Information website www.SaskH2O.ca</p> | <p>Water Inquiry Line Questions about water? Call 1-866-SASK H2O (1-866-727-5420) to be referred to proper agency.</p> |
| <p>Saskatchewan Ministry of Health http://www.health.gov.sk.ca/environmental-health Regional Health Offices 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>Saskatchewan Watershed Authority, Head Office, Moose Jaw (306) 694-3900 Website: www.swa.ca <i>Regional Offices:</i> http://www.swa.ca/AboutUs/Contact.asp?type=Offices</p> <p>Sask Water Corporation Head Office, Moose Jaw Customer Service 1-888-230-1111 Website: http://www.saskwater.com</p> <p>Agri-Environment Services Branch * Agriculture and Agri-Food Canada Website http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1187362338955&lang <i>Regional Office:</i> http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1254830746884&lang=eng</p> |
| <p>Saskatchewan Ministry of Health Saskatchewan Disease Control Laboratory, Regina General Inquiry 1-866-450-0000 Phone: (306) 798-2125 // Fax (306) 798-0071 Website: http://www.health.gov.sk.ca/lab</p> | <p>Saskatchewan Ministry of Agriculture General Inquiry 1-866-457-2377 Agricultural Operations Regina (306) 787-4680 Irrigation Development Outlook (306) 867-5500 Website: www.agriculture.gov.sk.ca</p> |
| <p>Health Canada First Nation and Inuit Health Branch, Regina (306) 780-5434 // FAX (306) 780-5107 Website: http://www.hc-sc.gc.ca</p> | <p>Saskatchewan Ministry of Environment Toll-Free 1-800-567-4224 Spill Emergency Toll-Free 1-800-667-7525 Website: http://www.environment.gov.sk.ca</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).